



Reviving to Reinventing businesses to tide over COVID-19

An analysis of the cross-sectoral economic impact of COVID-19 on India and how IBM is empowering its customers during challenging times



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As the world gears up to combat the COVID-19 pandemic and countries impose stringent lockdown measures, businesses are grappling with the imminent challenge of business continuity. With workforces in quarantine, economic activities are struggling to keep pace and markets have plummeted. Supply chains have been disrupted and sales forecasts and GDP growth projections have taken a severe hit across industries and economies.

Uncertainties around the virus have left experts in the dark. How long will lockdowns last? When will our lives return to normalcy? How do we best equip ourselves to navigate the crisis? Even as experts strive to uncover answers, the general consensus is clear; the global economy is facing one of its most challenging times. With no clear end on the horizon, adaptability and agility need to be the cornerstones of business strategies.

Now more than ever, organizations need to reinvent themselves to adapt to the new normal and navigate the crisis. What follows is a study that we hope will be useful now and remain so in the months ahead, as we continue to learn and share more from emerging circumstances. This whitepaper is designed to help business leaders make data-driven decisions, with complete know-how of short-term and long-term implications of the pandemic.

The world is a global village: An analysis of global value chains

In early 2020, the International Monetary Fund (IMF) projected a positive per capita income growth, for over 160 countries¹. But today, the pandemic has taken the projections for a toss.

The efforts to contain the coronavirus have caused economic activity to slow abruptly. It is imminent that widespread lockdowns will disrupt domestic activity and international trade further in near term. However, what remains obscure is the long-term impact of COVID-19 on global economic growth. Experts opine that the impact could eclipse the decline in output we witnessed in 2009².

With economies closely linked to each other in complex, inter-woven value chains, global trade will be the key channel of economic disruption.

As shown in *Figure 1*, the trade-to-GDP ratio of India is comparable to large economies. Although the dependence on exports and imports is not as high as that of other countries like Singapore, the implications are still significant.

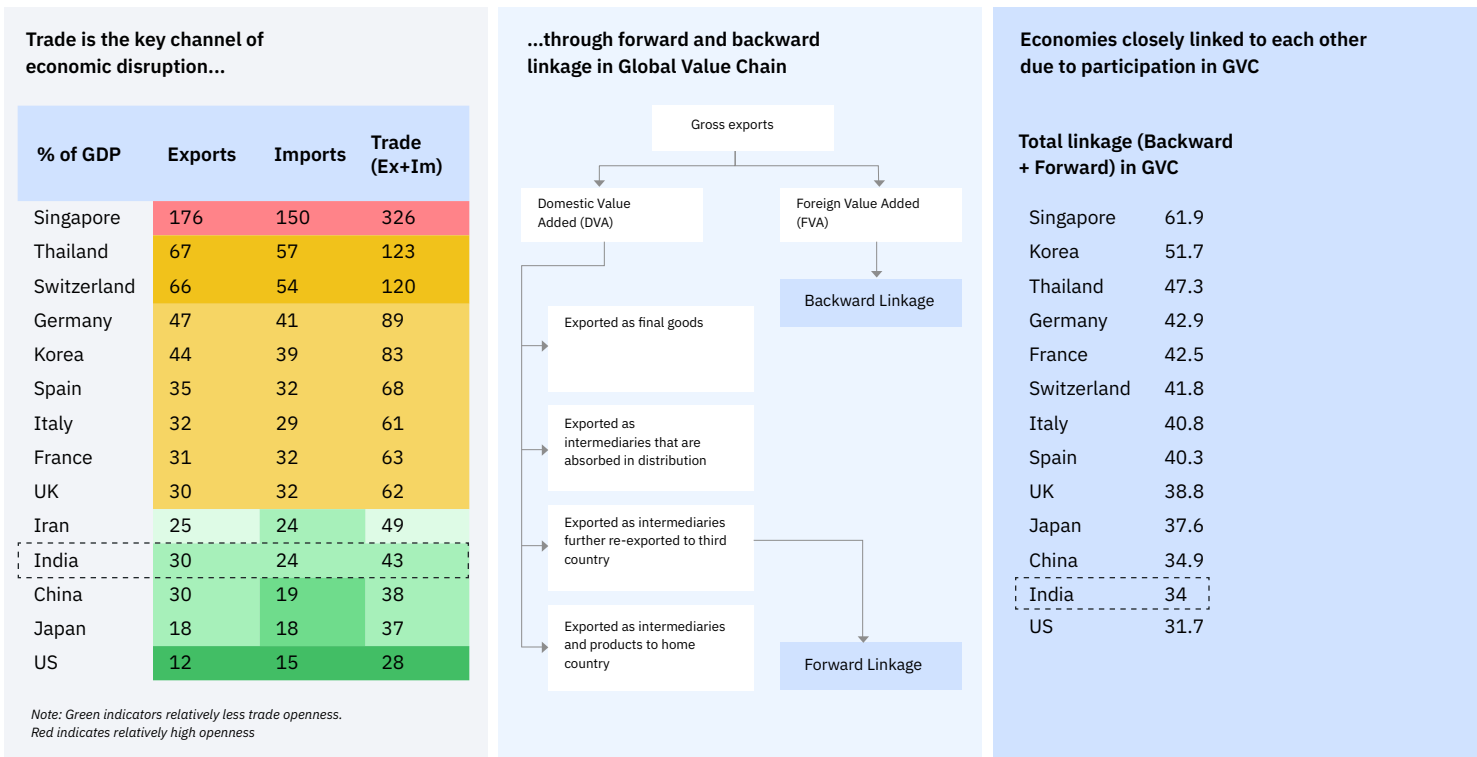


Figure 1: Trade increasingly organized around Global value chains (Official statistics, IMF, OECD)

The impact on India: A macroeconomic perspective

According to the United Nations Conference on Trade and Development (UNCTAD), the disruption of trade in China and the subsequent impact on Chinese supply chains can have a spillover effect on India. Across various sectors, the ramifications are estimated to be around US\$ 350 million. Labor- and raw material-intensive industries, like chemical, textiles, machinery and metals are likely to be the most affected. These disruptions will contribute to negative supply shocks and reduced output.

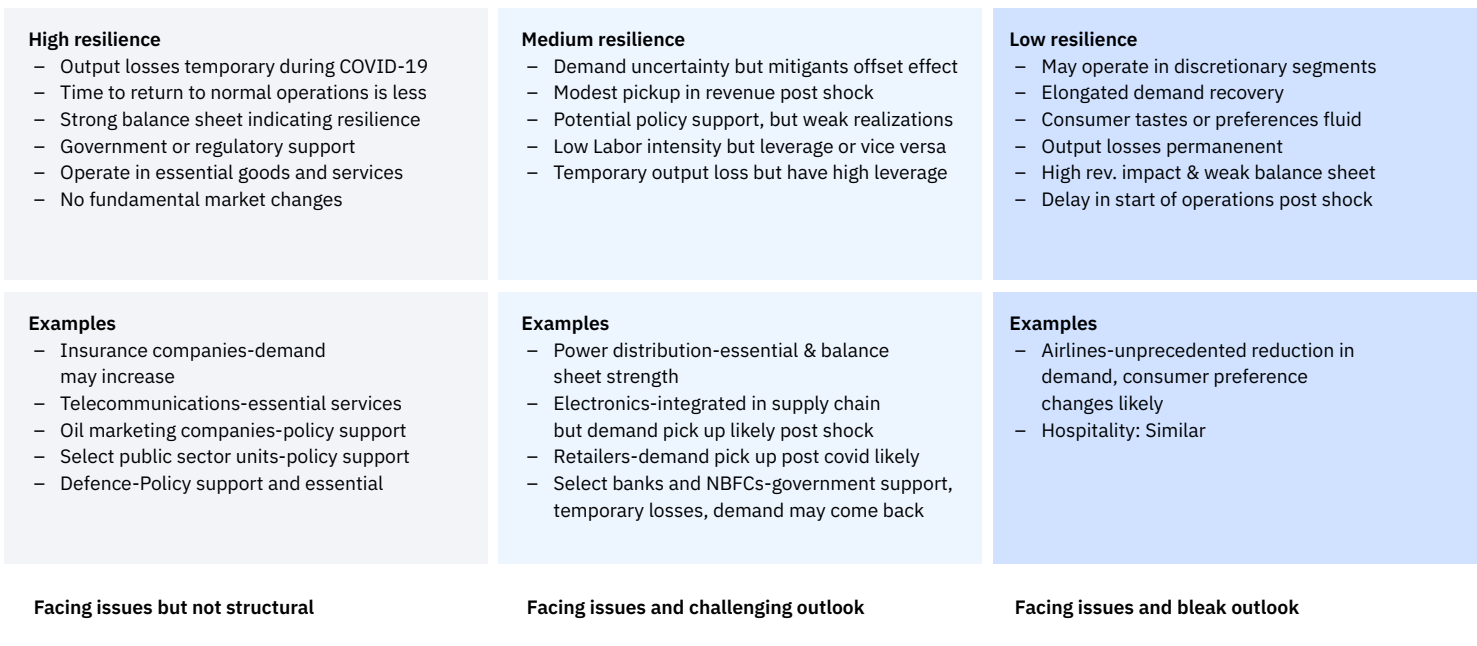


Figure 2: Industry impact of COVID-19 and challenging economic conditions

As shown in *Figure 2*, companies in the insurance, telecommunication, defense, government and life science spaces have the most immunity. On the other hand, the retail, oil & gas, electronics, automotive and industrial sectors are likely to face high headwinds. The most severely impacted industries are airline and hospitality, which are facing an unprecedented disruption in operations.

From a demand perspective, reduced expenditure will have a multiplier effect on the Indian economy.

Further, investment spending and income growth will decrease amidst high uncertainties in the business environment.

Dipping into savings may not be a sustainable move, given the declining levels of savings-to-GDP ratio.

The implications of the reduced demand can be particularly pronounced in the service sector. For instance, consumer-facing services, such as leisure and hospitality, are already suffering. As the shock ripples through, business services will take a hit and international tourism may struggle to recover.

Further, worsening sentiments and survey indicators (depicted in *Figure 3*) like consumer confidence, economic conditions and Purchasing Managers' Index (PMI) will lead to lower demand expectations from firms, thus aggravating the weakness.

Table Header	Mar-18	Jun-18	Sep-18	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19	Mar-20
RBI Overall Biz situation	36.1	36.9	34.6	36.3	36.7	36.9	35.2	21.7	22.6
Economic conditions	-6.8	-5.4	-10.6	-6.4	1.1	-14.4	-21.6	-27.8	-23.9
Employment	-11.6	-4.1	-10.3	-8.7	3.9	-13.1	-24.5	-33.1	-30.5
Consumer confidence	95.6	98.3	94.8	96.7	104.6	97.3	89.4	85.7	85.6
PMI Manufacturing	51.0	53.1	52.2	53.2	52.6	52.1	51.4	52.7	51.8
PMI Services	50.3	52.6	50.9	53.2	52.0	49.6	48.7	55.3	49.3
Policy uncertainty	42.0	47.2	63.5	66.1	40.6	72.9	105.5	106.0	106.8
Darker cell indicates weakness									

Figure 3: Indicators of economic activity (RBI, Markit, Policy Uncertainty project)

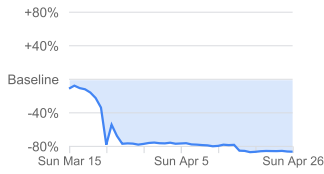
The indicators captured above are continually evolving and do not fully capture the impact of the lockdown yet. Going forward, the values are expected to plunge further downward. Moreover, restricted mobility has severely influenced discretionary spending. For instance, the mobility reports published by Google³ (shown in *Figure 4*) suggest

that mobility trends have drastically changed over the past few weeks. Unsurprisingly, places of recreation, grocery and pharmacy, parks and public places have recorded a sharp decline in footfall. Consequently, consumer spending on retail, restaurants, leisure, recreation, and transport have suffered.

Retail & recreation

-86%

compared to baseline



Transit stations

-66%

compared to baseline



Grocery & pharmacy

-51%

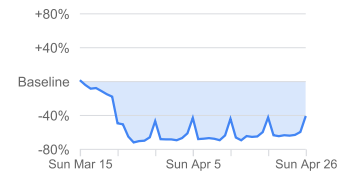
compared to baseline



Workplaces

-41%

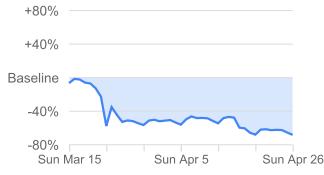
compared to baseline



Parks

-68%

compared to baseline



Residential

+22%

compared to baseline

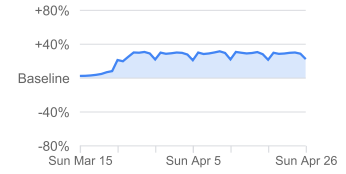


Figure 4: The drastic downturn of mobility trends (Google mobility trends)

Recovery driven by resilience: The outlook

In the context of the above-mentioned economic conditions, what will the recovery of the Indian economy look like? Drawing from China's experience, it is clear that if organizations do survive the crisis, production and consumption will improve over a period of time, once the restrictions are eased. If the situation were to improve beyond H1 of 2020, recovery would be moderate and gradual. **However, the relative resilience of sectors will be the differentiating factor in determining the speed of recovery.**

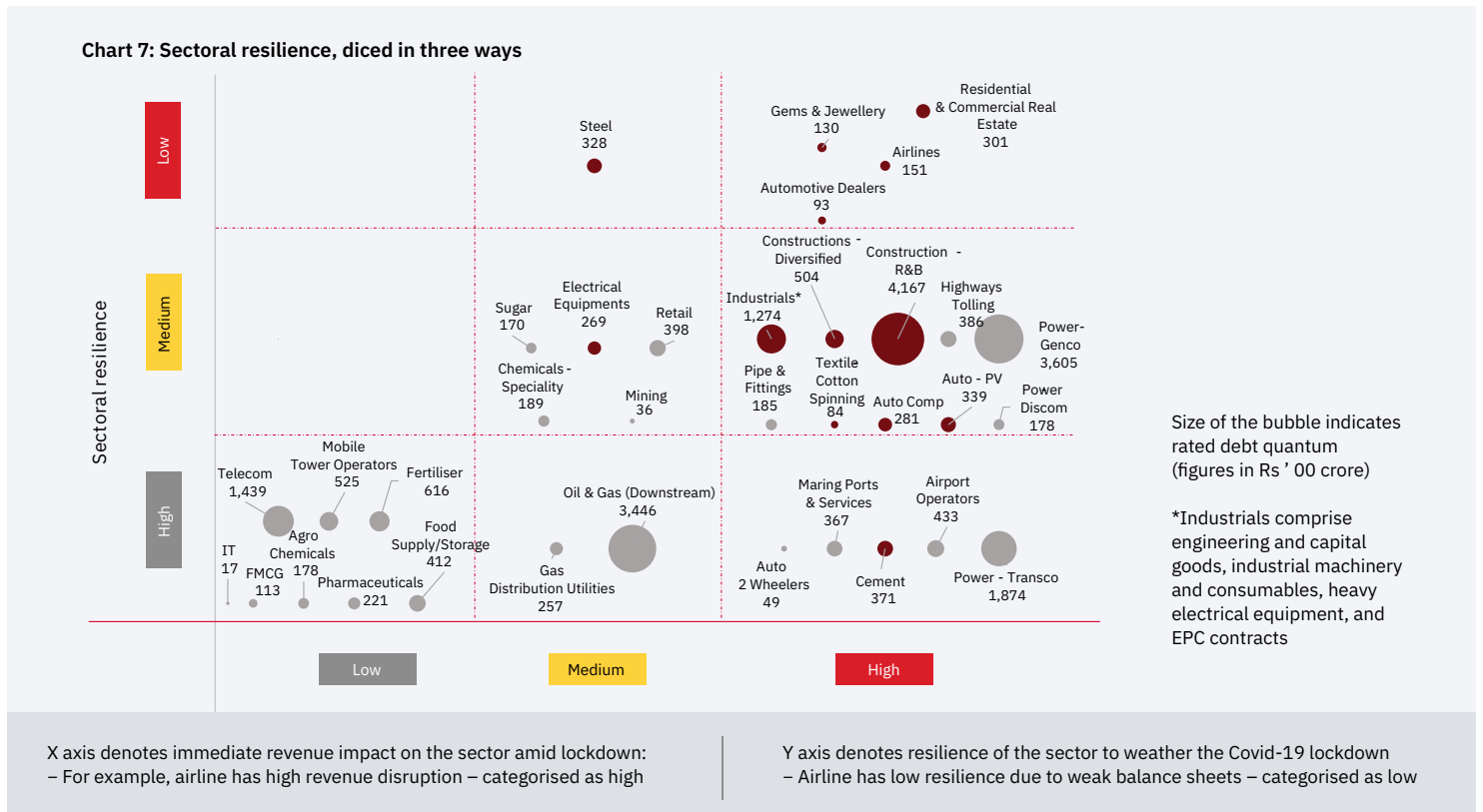


Figure 5: Sectoral resilience based on CRISIL Ratings⁴

High resilience sectors:

High resilience sectors are those that record temporary, minimal losses during COVID-19 but quickly bounce back to normalcy. The businesses in these sectors have strong balance sheets, indicating high resilience. Industries, like chemical, textiles, machinery and metals are likely to be the most affected. These disruptions will contribute to negative supply shocks and reduced output.

Reserves: With presence of enough liquidity and reserves, these sectors will gear up for production and better prospects of demand restoration, as soon as the restrictions are eased.

Regulations: The high-resiliency sectors have robust government or regulatory support and may operate in essential goods and services.

Revenues: These sectors may have low revenue impact during the June 2020 quarter, due to the nature of business (like essential services).

High resilience sectors may include oil marketing companies, which have a strong policy support despite the moderate revenue impact during COVID-19. While the demand collapse due to the lockdown may hit realizations, soft crude prices will lead to low subsidy burden and high marketing margins.

Medium resilience sectors:

Medium resilience sectors are those where there are uncertainties in demand post COVID-19, but some mitigants partly offset the effect. Low labor intensity could be a mitigant, but leverage may be high, indicating a *relatively less resilience*. In contrast, sectors that are a part of essential services and have a high labor intensity indicate a low demand uncertainty and some possibilities of activity resumption. These sectors may have temporary losses in output but have a high leverage.

Reserves: The revenues of companies in the space get impacted due to sluggish demand, but reserves are expected to support the disruptions induced by COVID-19.

Regulations: While there exists a potential for government policy support, realizations could be weak.

Revenues: Sectors in this category may have a large part of their *revenue impact limited to the COVID-19 phase* but show only a modest revenue pick-up post the pandemic, due to sluggish industrial growth.

Medium resilience sectors include power distribution companies, as they are a part of essential services and they have policy support in the form of moratoriums on loan repayments, which may offset weak collections. Power availability at low rates may also encourage improvement in finances.

Low resilience sectors:

Low resilience sectors are those that operate in discretionary products or services and have a possibility of elongated demand recovery. As consumer tastes or preferences have changed due to COVID-19, the output losses for companies in this sector are likely to be permanent. Such sectors may exhibit *delay in start of operations*, due to raw material unavailability on account of high exposure to global supply chains.

Reserves: These sectors have relatively weak balance with liquidity and reserves position not strong enough to offset COVID-19 related disruptions.

Regulations: Possibility of government support is either minimal or the impacts of such policies have a long gestation period due to nature of business or structural issues.

Revenues: These sectors have *high revenue impact* from COVID-19 with high leverage indicative of *weak resilience*.

Low resilience sectors may include airlines, as they face immediate revenue impact due to demand disruption. This may also delay an uptick in consumer demand, once restrictions are eased. High leverage in the sector will likely impact the interest repayment ability of businesses, amid low realizations.

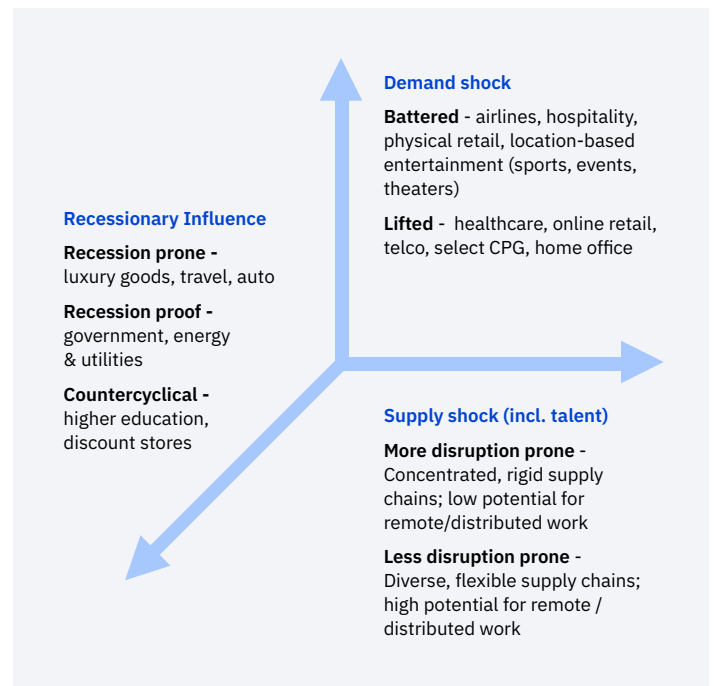


Figure 6: Recessionary influence on sectors due to demand and supply shocks (IBM analysis, IBV 2020)

IBM's R2R mantra for organizational response:

Revive Normalize Vitalize Reinvent

At IBM, we recommend an R2R approach to how organizations can respond to the short-term and long-term complexities in the business environment.

Revive: First and foremost, the immediate priority of business leaders is the revival of operations and an in-depth impact analysis of operational and financial repercussions of the pandemic. This will help chart out a holistic strategy to normalize business operations over time.

Normalize: COVID-19 will fundamentally change the way of doing business. Hence, reimagining the business model will be the key component of a resilient business - one that shields operations from further disruptions in the future.

Once the business resiliency levers are identified to facilitate the return to day-to-day operations, the next step is to identify the IT levers. This is a particularly important step.

Technology is the glue that will hold all the business facets and stakeholders together. At the end of the day, every business is a technology business.

Vitalize: After reviving and reimagining business models, enterprises must nurture and scale up their operations, by embracing new ways of working and focusing on new-age partnerships and ecosystems.

Reinvent: While channelizing energies on revitalization, organizations must also actively look at expansion and reinvention opportunities. Tapping into newer revenue streams and diversifying footprint in newer ventures, business models and geographies is a critical phase of organizational response.

IT - The all-encompassing enabler of enterprise agility

A robust IT framework is the foundation of business dexterity. As shown in *Figure 7*, organizations that leverage technology as the cornerstone block of their Business Continuity Planning (BCP) will benefit from new ways of working, cost optimization, revenue optimization and risk management.

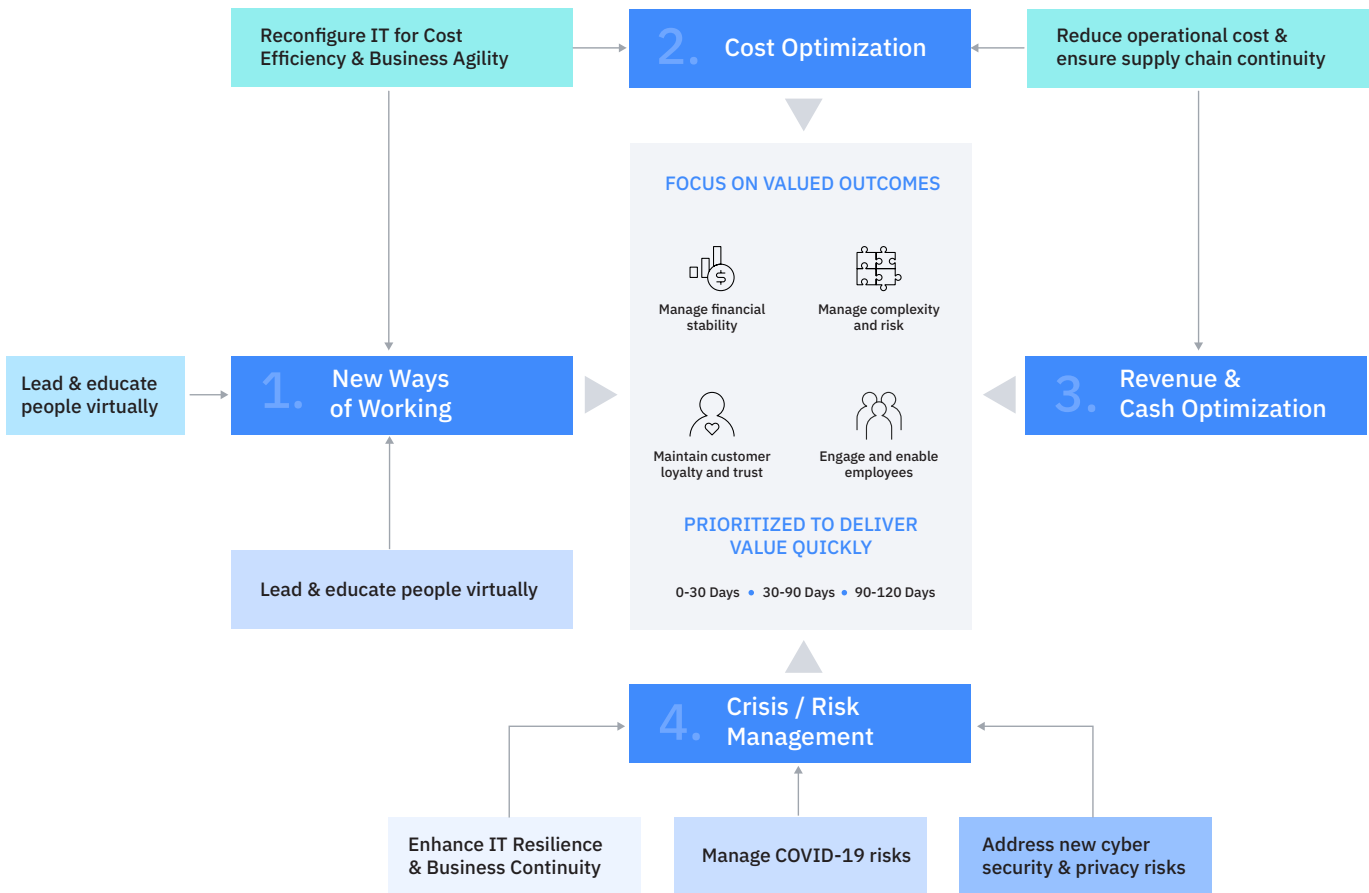


Figure 7: The role of IT in reinventing organizational response

In the post-COVID-19 business environment, IT will play an ever more important role in accelerating the growth of organizations, through new expertise, new focus areas and new ways to work (refer Figure 8). In this regard, IBM's suite of tech tools - Internet of Things

(IoT), Blockchain, Cloud, Cognitive & Analytics, emerging technologies, mobile and social platforms, to name a few - **not only empowers enterprises and employees to work from anywhere, anytime, but also provides enterprise-grade security to mission critical data.**

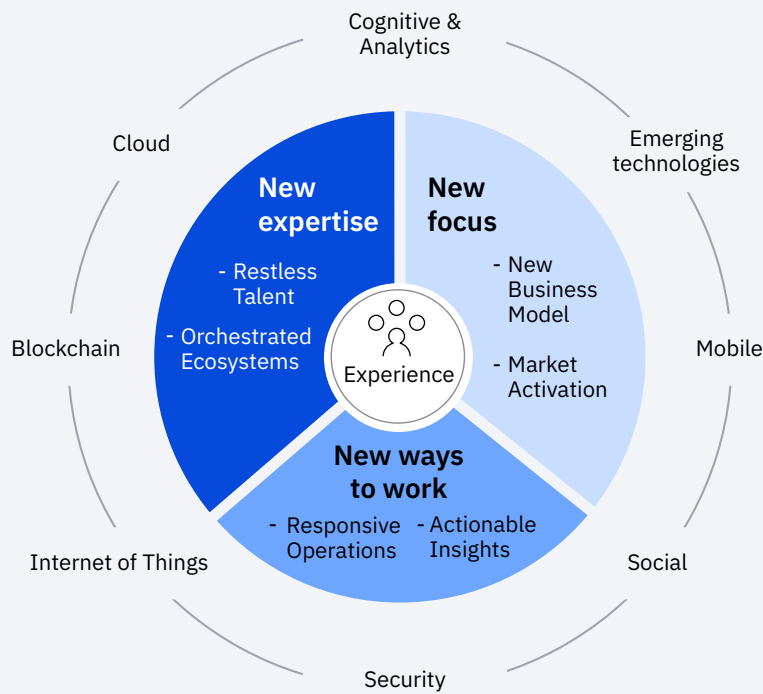


Figure 8: The pursuit of excellence and innovation with IT (IBM Consulting, 2020)

Our advice on navigating uncharted waters

Amidst the chaos and uncertainty that surrounds us today, it is of paramount importance for businesses to adapt to new ways of working. As organizations go through the unprecedented challenges brought about by the COVID-19 crisis, they will have to ponder deeply on navigating volatile situations and emerging stronger. **At IBM, we are committed to supporting our customers and partners through these difficult times.** Our structured offerings are based on the themes outlined below -

Pressing requirements of business leaders

Our response

How do I quickly enhance the resiliency of my IT and ensure the continuity of my business?

Businesses need to leverage resilient, flexible and secure IT infrastructure to protect their operations during the vulnerable COVID-19 period.

How do I protect my business and workforce from new cybersecurity and privacy threats?

Cyber security challenges will increase, as cyber criminals have sensed opportunities due to a rapid shift to remote working. Businesses need to embrace a proactive IT approach to combat cyber threats and make remote work safe and secure.

Pressing requirements of business leaders

Our response

How do I rapidly reduce my IT costs and improve business agility?

Businesses must seamlessly transition to a remote business working model underpinned by a secure, flexible cloud platform. Our advice is to opt for integrated applications that facilitate the mobility, virtualization, collaboration and support requirements of your teams.

How do I reduce operational costs and ensure supply chain continuity?

COVID-19 poses unparalleled supply chain challenges for business of all sizes. Value chain operations should dynamically respond to external variances and bounce back with resilience.

How can I effectively lead and educate a virtual workforce?

Businesses need to adopt a flexible workforce model and empower remote employees with productivity, engagement and collaboration tools.

How do I move to fully digital customer interactions and keep them engaged?

With widespread adoption of remote working, the capacities of customer care centers and service desks are stretched. To address the marked increase in call volumes, organizations can leverage digital technologies to nurture customer interactions through multiple channels and boost customer satisfaction.

How do I manage COVID-19 and other public health issues?

COVID-19 and other public health emergencies can be stressful times for everyone, especially for healthcare, life sciences and other frontline businesses. In such a scenario, a robust IT strategy can help healthcare professionals to stay connected, informed and nimble-footed while responding to dynamic situations.

An overview of IBM's COVID-19 offerings

At IBM, our cloud- and AI-infused solutions are helping our clientele enable remote collaboration through reliable, productive virtual workspaces.

Leveraging our technologies, customers are able to keep mission-critical systems running in a hybrid cloud environment, overcoming limited on-site technical resources or support.

IT resilience, business continuity and cybersecurity solutions	Customer engagement solutions	Employee empowerment solutions
Enhance IT resilience by archiving on IBM Cloud	Build citizen-facing apps with Watson Assistant for Citizen Self Service	Empower your remote workforce by providing employees with 24x7 information and crisis-related answers

IT resilience, business continuity and cybersecurity solutions	Customer engagement solutions	Employee empowerment solutions
Ensure business continuity with seamless scale-in and scale-out capabilities of Burst Compute on Cloud	Deploy employee-facing apps with Watson Assistant for Employee Self Service	Bolster employee skill, productivity and engagement during remote work
Protect your remote workforce	Develop customer service solutions with Watson Assistant	Identify and authorize essential employees with Workday
Detect and respond to new cyber threats	Support health and human services with Watson Care Manager	Provide a roadmap to transform HR through digital operations, identify cost reduction opportunity areas, and understand the workforce impact of COVID-19
Virtually extend your security team and quickly build on expertise		

Further, our COVID-19 offerings are tailored to suit the cost, revenue and cash optimization initiatives of organizations.

IBM Supply Chain Resiliency Support Kit includes visualization of supply chain locations for prioritization of disruptions and changes in key locations, through a real-time COVID-19 dashboard of hyperlocal data across various inputs, such as virus spread, weather and country-level news.

IBM Demand Sensing Kit offers inbuilt demand-supply projection capabilities, using state-of-the-art Machine Learning algorithms. The solution provides actionable recommendations on future demand, production schedules and fulfilment plans, in conjunction with a command center that tracks the pandemic.

IBM Rapid Emergency Supplier Onboarding and Inventory Rapid Emergency Supply Onboarding (RESO) kit, powered by Sterling Inventory Availability, provides real-time private supplier network and inventory visibility across multiple suppliers. The platform also indicates product availability and optimal delivery schedules.

IBM Control Tower for Inventory overlays external risks, on a consolidated real-time view of supply and demand. The solution

helps organizations to rapidly identify risks, remediate issues and resolve disruptions using Sterling Control Tower for Inventory.

IBM Manufacturing Excellence for Edge helps clients who produce COVID-19-related supplies, like respirators, ventilators and masks. The solution leverages IBM Visual Insights and Production Optimization assets to meet product manufacturing specifications and quality norms.

IBM Content Intelligence is an AI-augmented solution that automates the extraction of data and insights from the ever-increasing volumes of unstructured, textual content.

How IBM is helping its clients

Across the globe, we are ensuring that our clients continue to conduct uninterrupted operations and achieve milestones in their missions. As depicted in *Figure 9*, right now, we're helping our clients operationalize their businesses, by arming them with secure remote working and collaboration tools. Over the next three months, our focus will be on supporting customers in their rapid cost take out initiatives. In the long run, we will help our clients gain a laser-sharp focus on financial metrics and win in the marketplace with differentiated capabilities.

Now 0-30 days	Soon 1-3 months	Later Next 6-24 months
<p>Help our clients:</p> <ul style="list-style-type: none"> – Protect employees and support remote working and collaboration – Stabilize projects, operations and assure supply of critical product – Prioritize and segment customer base to understand their need – Risk analysis (worst case/best case scenarios) across demand, supply and financial metrics 	<p>Help our clients:</p> <ul style="list-style-type: none"> – Drive rapid cost take out initiatives through procurement and labor – Prioritize critical Capex and project spend – Tight collaboration with strategic suppliers, customer and partners (including real-time health analytics) – Focus on driving sales and cash management 	<p>Help our clients:</p> <ul style="list-style-type: none"> – Assess changes to core business and long term impact – Implement structural solutions to address new normal across Enterprise – Win in the marketplace with differentiated capability and lowest cost to serve – High focus on financial metrics
<p>Agile planning, decision making and high focus on changing customer needs.</p>		

Figure 9: Immediate, short-term and long-term support by IBM

We are humbled to support some of the most reputed enterprises, such as Verizon, Pepsi, Vodafone, Shell, Panasonic and Maersk, which are leveraging our bouquet of technology solutions to be up and running. In India as well, we are privileged to help our customers

adapt to the challenging times and be resilient. A wide range of enterprises, like Indian Oil, Bajaj Allianz, Aditya Birla Group, Airtel and Godrej are leveraging our solutions to ensure business continuity.

Helping our clients to adapt and be resilient

Enhance IT resilience and business continuity	Address new cybersecurity risks	Accelerate agility and efficiency with Cloud	Reduce operational cost and ensure supply chain resiliency
Empower your remote workforce	Engage all customers virtually with Watson	Support health and human services	

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- 1 International Monetary Fund, World Economic Outlook, January 2020 (<https://www.imf.org/en/Publications/WEO/Issues/2020/01/20/weo-update-january2020>)
- 2 International Monetary Fund, The Great Lockdown: Worst Economic Downturn Since the Great Depression, April 2020 (<https://blogs.imf.org/2020/04/14/the-great-lockdown-worst-economic-downturn-since-the-great-depression/>)
- 3 Google, COVID-19 Mobility Reports, 26 April 2020 (<https://www.google.com/covid19/mobility/>)
- 4 CRISIL, Pandemic to weigh on India Inc. credit quality, April 2020 (<https://www.crisil.com/content/dam/crisil/our-analysis/views-and-commentaries/sector-round-up/2020/april/pandemic-to-weigh-on-india-inc-credit-quality.pdf>)

