The Indian telecom industry continued to extend its services to keep the wheels of the economy turning during the challenging phase of the pandemic. The industry battled its own problems while doing so, including financial stress, high debt levels and low return on investments. The year witnessed the Government of India’s seminal reforms for the telecom sector. The reform package heralds a new dawn for the Indian telecom industry and paves the path for a sustainable 3+1 telecom operator structure to serve a large market like India. While the reforms will fuel growth of the telecom sector, much more needs to be done in the direction of improving suppressed tariffs and reduction in spectrum prices.

Bharti Airtel once again demonstrated strong, sustained growth on the back of a robust, agile execution engine which drives the company that is future ready. The growth was well spread across segments – with mobile India witnessing tariff hikes and progress on the premiumisation agenda, the home broadband market exploding with increased remote working requirements, the digital TV segment demonstrating resilience and the enterprise business riding on the need for increased connectivity and adjacencies. On the digital side, the Company expanded its highly engaged digital users base to over 189 million MAUs. In fact, Airtel Payments Bank turned profitable during the year, with an exit user base of 129.4 million and a monthly transacting user base of 36.7 million.

A razor-sharp focus on digital acted as a key differentiator for the Company. Over the past years, the Company has made substantial investments in digital infrastructure, raising the bar with superior digital experiences and scalable profitable digital services. Airtel continues to improvise and innovate, launching multiple new digital services and offerings including Airtel Black, Airtel IQ Video, DigiGold, Rewards123plus, Mera Pehla Smartphone, IoT solutions, online security service - Secure Internet, credit card and a higher 6% interest rate in

Management Discussion & Analysis

Overview

The Financial Year 2021-22 was pivotal for the industry as well as for Bharti Airtel. The year witnessed two COVID-19 waves, which impacted the economy in quick succession. Although the second wave turned out to be deadlier than the first in 2020, it had a moderate impact on the economy given greater preparedness and staggered lockdowns. Amidst the successive pandemic waves, the Company continued to offer its essential services on a war footing, and on many occasions went beyond the call of duty to serve society in a meaningful way. It announced special benefits to 55 million low-income customers on its network to help them stay connected during the pandemic. During the year, the business also continued to be resilient and show consistent growth.
Airtel Payments Bank savings account. Enriching partnerships were entered with best-in-class organisations including Axis Bank, Apollo, Tata, TCS, Cisco, Google Cloud, Intel, Kaspersky, Disney+Hotstar, Ericsson, Oracle, Nokia, Avanseus, Capgemini and Tech Mahindra to name a few. Simultaneously, the Company expanded its offerings through strategic equity collaborations with Cnergee for cloud-based networking solutions, Aqilliz for blockchain as a service and Lavelle for SD-WAN.

As always, Bharti Airtel continued to lead the pack on new technologies, even with 5G readiness. Alongside test cases, it carried out India’s first 5G demonstration on a live commercial network, rural 5G trial, cloud gaming experience trial and a 700 MHz band 5G trial. During the year, the Company bolstered its spectrum holding by firing up the newly acquired spectrum, enabling enhanced network coverage and brilliant network experience for the customers.

While being customer obsessed and future ready, the Company continued to build a robust balance sheet. In addition to maintaining a strong operating leverage, Airtel worked tirelessly on achieving a leaner balance sheet. Again, acting well ahead of the curve, it created a war chest of expected cash from the Google collaboration and uncalled amount of the rights issue. Additionally, while it opted for a moratorium on the government payments, it pre-paid over ₹243 Bn to clear high-cost spectrum dues. The Company continues to work on maintaining an efficient capital structure and balance its growth and deleveraging agenda.

Last but not the least, the Company sharpened its strategic focus on the Environmental, Social and Governance (ESG) agenda by forming an ESG Committee of the Board of Directors as well as an Operating ESG Council led by the MD & CEO. While the Board committee will provide strategic guidance and oversight to the Company’s progress on ESG targets, initiatives and best practices, the operating committee is entrusted with realising the vision of the Board Committee.

Economic review

In its third year of the COVID-19 pandemic, the world economy saw both hits and misses. Although risks and considerable uncertainty remain, the good part is that economic activity in most countries has rebounded since 2020, when the global economy saw a 3.3% decline. Global growth is estimated at 6.1% in 2021, registering the strongest post-recession pace in 80 years. This can be attributed to relaxation of pandemic-related lockdowns in many countries which, in turn, helped boost demand. Advanced economies witnessed a strong growth of 5.2% in 2021 vs a decline of 4.7% in the previous year. On the other hand, Emerging Markets and Developing Economies (EMDEs) grew by 6.8% during 2021 vs a decline of 2.2% in 2020. Developing countries benefited though as international trade picked up and commodity prices increased. This, along with pandemic-led demand-supply imbalances has led to a surge in inflation in many economies. However, domestic financial crises and foreign debt restructurings were less frequent than initially feared.

Towards the end of the financial year, when the global economy was on a path to recovery, the Omicron variant appeared to be fading and many parts of world were moving past the acute phase of the pandemic, the Russia-Ukraine war broke out, impacting the global economy. In addition to the war, lockdowns in China have slowed overall economic activity and could cause new bottlenecks in global supply chains.

Outlook

As per the International Monetary Fund (IMF), global growth is projected to slow from an estimated 6.1% in 2021 to 3.6% in 2022 and 2023, reflecting possible COVID-19 flare-ups, diminished fiscal support and lingering supply bottlenecks. The impact of the ongoing war may not be limited to Russia and Ukraine, and spill over to other economies, thus dampening the global growth outlook. Supply shortages in a few sectors are expected to last till 2023, but bottlenecks are expected to eventually ease as production elsewhere responds to higher prices and new capacity becomes operational.

The war is also likely to have a protracted impact on commodity prices, affecting oil and gas prices more severely in 2022 and food prices well into 2023. As per the World Bank, output and investment in advanced economies are projected to return to pre-pandemic trends next year. In EMDEs, the same should remain markedly below par, owing to lower vaccination rates, tighter fiscal and monetary policies and more persistent scarring from the pandemic.

**Global growth trend**

<table>
<thead>
<tr>
<th>Year</th>
<th>World Output</th>
<th>Advanced Economies</th>
<th>Emerging Market and Developing Economies</th>
<th>Sub-Saharan Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>-3.3</td>
<td>-4.7</td>
<td>-2.2</td>
<td>-1.9</td>
</tr>
<tr>
<td>2021</td>
<td>-8.0</td>
<td>6.1</td>
<td>5.2</td>
<td>6.8</td>
</tr>
<tr>
<td>2022 (P)</td>
<td>6.8</td>
<td>8.1</td>
<td>8.9</td>
<td>4.5</td>
</tr>
<tr>
<td>2023 (P)</td>
<td>8.2</td>
<td>8.2</td>
<td>6.9</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Indian economy**

As per IMF, the Indian economy grew by 8.1% in 2021 vis-à-vis a decline of 8.0% in 2020. Economic activities, however, recovered surpassing pre-pandemic levels, with the majority indicators showing a lower economic impact from the second wave compared to the first, even though the health impact was more severe. Multiple COVID-19 waves, supply chain challenges and inflation were managed through a flexible, evolving and agile strategy, reducing the impact on vulnerable sections of society and the corporate sector. This included a significant push in infrastructure capital expenditure to build back medium-term demand.

It was heartening to see that despite the COVID-19-led disruptions, India’s balance of payments remained in the surplus throughout the last two years. This, along with high foreign exchange reserves, sustained foreign direct investment, rising export earnings are expected to cushion the possible global liquidity tapering in the coming year.

Given the strong rebound in government revenues in FY 2021-22 vs the previous year, the Economic Survey 2021-22 expects the government to comfortably meet its targets for FY 2022-23 while maintaining support and ramping up capital expenditure.

Indian capital markets, along with the banking system, performed strongly during the year, with the stock market outperforming most of the key foreign markets and the banking system moving away from NPA issues and achieving comfortable capitalisation.

**Outlook**

IMF expects India’s GDP to grow at 8.2% in 2022 and 6.9% in 2023, making India the fastest growing economy in the world for at least the next two years. This outperformance is expected to be supported by a strong COVID-19 vaccination program, supply-side reforms, easing of regulations, robust export growth and availability of fiscal space to ramp up capital spending.

A strong banking system is expected to fuel private sector investments, and in turn, provide solid support to the revival of the economy.

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African economy
The sub-Saharan African economy grew by 4.5% in 2021 vis-à-vis a decline of 1.9% in the previous year. The strong recovery was well supported by a rebound in commodity prices and a gradual easing of social restrictions, although this was somewhat offset by the impact of new COVID-19 variants and low vaccination rates in the region. In some countries, the economy was negatively impacted from the adverse impact of the pandemic, while high unemployment and elevated inflation dented consumer confidence.

Industry overview
Indian telecom sector
India's total telecom users base stood at 1,166.9 million as on March 31, 2022. The Indian telecom market has undergone consolidation into three large telco players and has seen pricing interventions. The total customer base has decreased by 3.3% over a span of five years till March 31, 2022. The tele-density as on March 31, 2022 was 84.88% – urban tele-density stood at 134.94%, whereas rural tele-density stood at 58.07% as on March 31, 2022.

Among service areas excluding metros, Himachal Pradesh has the highest tele-density (138.44%), followed by Kerala (125.15%), Punjab (119.41%), Tamil Nadu (103.76%), Gujarat (95.08%), Andhra Pradesh (93.53%), Haryana (92.24%), Jammu & Kashmir (88.55%). Among the metros, Delhi tops with 267.64% tele-density. Service areas such as Bihar (52.88%), Madhya Pradesh (67.35%), Uttar Pradesh (67.68%) and Assam (68.50%) have comparatively low tele-density. The wire-line customer base stood at 24.84 million at the end of March 31, 2022 vis-à-vis 20.24 million at the end of March 31, 2021.

Outlook
Strong economic growth is expected to continue in sub-Saharan Africa, with IMF estimating 3.8% growth in 2022 and 4.0% in 2023. Given the higher share of food in consumption expenditure, higher prices may hurt consumers’ purchasing power, thus impacting domestic demand. Recent increase in crude oil prices has, however, lifted growth prospects for the region’s oil exporters, such as Nigeria.
Airtel Africa’s Services and Network

Africa is one of the world’s fastest growing regions in terms of population and urbanisation. A young and growing population, an expanding urban middle class, limited infrastructure, and people’s need to connect with each other and with local and global economies are factors that are driving an ever-increasing demand for data, mobile voice and mobile money services across sub-Saharan Africa.

Mobile networks are the primary source of voice and data services in much of the region, where landline and fixed broadband infrastructure is limited or, in many places, non-existent. That means mobile telecommunications is a critical resource, essential to people’s daily lives, to businesses, and to community and state service providers. Mobile connectivity remains low relative to other markets. By expanding and improving the network, Airtel is driving the trend towards strengthening of local infrastructures, and winning and retaining customers. Digitalisation will be at the heart of Africa’s future growth, and the region is already seeing a rapid expansion of data usage despite relatively low smartphone penetration.

Development in regulations

The year saw several regulatory changes and developments.

India

› On October 24, 2019, the Supreme Court of India delivered a judgment in relation to a long outstanding industry-wide case, upholding the view of the Department of Telecommunications (‘DoT’) in respect of the definition of Adjusted Gross Revenue (‘AGR’). Further, in its judgement dated September 1, 2020 (‘AGR September Judgment’), the Supreme Court reaffirmed that the demand raised by DoT, stated in its modification application, is final. In addition, the Supreme Court directed that the Telecom Service Providers (‘TSPs’) shall make a payment of 10% of the total dues as demanded by DoT by March 31, 2021, and the remaining dues in yearly instalments commencing April 1, 2021 till March 31, 2031, payable by March 31 of every succeeding financial year. Considering the above Supreme Court’s judgment, the Group accounted for provision for licence fee and spectrum charges based on the demand raised by DoT and paid part dues in the previous years. On July 19, 2021, the Group confirmed its compliance to the Supreme Court’s directions to pay 10% of the total dues by March 31, 2021. Further on July 23, 2021, the Supreme Court pronounced its judgment, whereby the applications filed by the TSPs for correction of errors in the computation of demand amount by DoT were dismissed. The Group filed a review petition against the July 23, 2021 order before the Supreme Court. Meanwhile, DoT vide letter dated October 14, 2021 has offered a one-time opportunity to opt for deferment of AGR-related dues determined by the Supreme Court in the AGR case, by a period of four years with immediate effect without changing the overall payment period of 10 years as fixed by the Supreme court (i.e. the last of the yearly instalment payment to be made by March 31, 2031). The revised amount of instalment of the AGR dues is to be paid within the set time frame only. The Group vide its letter dated October 22, 2021 has confirmed with DoT to avail the offer.

› On March 31, 2021, DoT issued amendments to the ISP licences granted under the old regime i.e. under the 2002 and 2007 guidelines that were implemented with immediate effect. Amongst the changes brought about by these amendments, the significant one is relating to the imposition of the licence fee on the revenue from pure internet services (by disallowing the deduction) on standalone ISP operators w.e.f. March 31, 2021.

› On September 15, 2021, the Cabinet announced major reforms in the telecom sector with an objective to protect and generate employment opportunities, promote healthy competition, protect the interests of consumers, infuse liquidity, encourage investment and reduce the regulatory burden on TSPs. These reforms were categorised under 3 major heads i.e. Structural reforms, Procedural reforms and Reforms to address the liquidity requirements of telecom operators.
Structural reforms

Rationalisation of AGR: Non-telecom revenue to be excluded on prospective basis from the definition of AGR.

Bank Guarantees (BGs) rationalised: Huge reduction in BG requirements (80%) against Licence Fee (LF) and other similar levies. No requirements for multiple BGs in different Licenced Service Areas (LSAs) in the country; instead, one BG will be enough.

Interest rates rationalised/penalties removed: From October 1, 2021, delayed payments of LF/Spectrum Usage Charge (SUC) will attract interest rate of SBI’s MCLR plus 2% instead of MCLR plus 4%; interest compounded annually instead of monthly; penalty and interest on penalty removed.

Future auctions: No BGs will be required to secure instalment payments; industry has matured and the past practice of BG is no longer required.

Spectrum tenure: In future auctions, tenure of spectrum increased from 20 to 30 years.

Surrender of spectrum: It will be permitted after 10 years for spectrum acquired in future spectrum auctions.

Spectrum Usage Charge (SUC): No SUC for spectrum acquired in future spectrum auctions.

Spectrum sharing encouraged: Additional SUC of 0.5% for spectrum sharing removed.

Investment encouragement: 100% Foreign Direct Investment (FDI) under automatic route permitted in the telecom sector; all safeguards will apply.

Procedural reforms

Auction calendar: Spectrum auctions to be normally held in the last quarter of every financial year.

Ease of doing business: Cumbersome requirement of licences under 1953 Customs Notification for wireless equipment removed; replaced with self-declaration.

Know Your Customers (KYC) reforms: Self-KYC (App-based) permitted; e-KYC rate revised to only one rupee; shifting from prepaid to post-paid and vice-versa will not require fresh KYC.

Paper Customer Acquisition Forms (CAF): These will be replaced by digital storage of data; nearly 300-400 crores paper CAFs lying in various warehouses of TSPs will not be required; warehouse audit of CAF will not be required.

SACFA clearance for telecom towers eased: DOT will accept data on a portal based on self-declaration basis; portals of other agencies (such as Civil Aviation) will be linked with DOT portal.

Addressing liquidity concerns of TSPs

The Cabinet approved the following for all TSPs:

Moratorium/Deferment on AGR dues: Moratorium of up to four years in annual payments of dues arising out of the AGR judgment, with the Net Present Value (NPV) of the due amounts being protected.

Moratorium/deferment on spectrum dues: On due payments of spectrum purchased in past auctions. (excluding the auction of 2021) for up to four years with NPV protected at the interest rate stipulated in the respective auctions.

Equity conversion of interest accrued on AGR dues: Option to TSPs to pay the interest amount arising due to the said deferment of payment by way of equity.

Equity conversion of interest accrued on spectrum dues: Option for TSPs to convert the due amount pertaining to the said deferred payment by way of equity at the end of the moratorium/deferment period, guidelines for which will be finalised by the Ministry of Finance.

On November 30, 2021, Telecom Regulatory Authority of India (TRAI) issued a consultation paper on 5G spectrum auction. The consultation paper has been issued on DoT’s request made in September 2021 and broadly covers the following aspects:

− Price/value of the spectrum.
− How the pricing valuation should be done under different spectrum bands (e.g. 2,300 MHz – 2,500 MHz, 700 MHz, 3,300 MHz – 3670 MHz, 526-698 MHz etc.) including the reason for change in valuation approach.
− International benchmarking and various approaches of valuation.
− Terms and tenure of payments w.r.t estimation of reserve price, terms of payment, tenure of payment, upfront payment etc.

TRAI has also issued a consultation paper on the ease of doing business on December 8, 2021. The paper covers the following aspects:

− Various concerns in the existing processes and suggested measures for reforms required in regulatory processes, policies, practices and procedures in the telecom and broadcasting sector.
− Emphasis on single window concept for submitting applications and getting approvals/value from different agencies without running to each agency separately for its approval.
− Simplifying the applications for the conduct of business and well-documented timelines with query response systems, with seamless integration with other ministries.
Management Discussion and Analysis

On January 17, 2022, DoT issued amended Unified Licence (UL)/Unified Licence (UL)-VNO with two new authorisations as below:

- Machine to Machine (M2M) Communication: This authorisation covers the underlying networks (e.g. LPWAN), which are catering to M2M services (provided by M2M service providers); the authorisation can be obtained either for National Service Area or Telecom Circle/Metro Service Area or SSA Service Area; access service providers, who also provide network for M2M services are not required to obtain this authorisation.
- Audio Conferencing/Audiotex/Voice mail service: These services were previously being provided under the Standalone Licences; now these have been brought under the scope of UL and will be subject to the same conditions as applicable to other authorisations under UL, such as payment of licence fee.

On February 8, 2022, DoT issued guidelines for registration of M2M service providers and WLAN/WPAN service providers. As per the guidelines, M2M and WLAN/WPAN service providers will be required to register with DoT and will be subject to light touch regulation, without an obligation of paying licence fee. Under the registration, M2M and WLAN/WPAN service providers and will have to comply with various conditions, such as:
- Reporting requirements.
- Security obligations – decryption of content, mandatory testing and certification of equipment, facilitate inspection of its network facilities by agencies, store data logs, event logs, system logs etc.
- Maintaining end user details and update these to TSP.

DoT has issued instructions for re-verification to be implemented from February 8, 2022 for existing mobile connections for:

- Existing subscribers having more than 9 connections.
- If subscriber places request for disconnection of mobile connection on DoT portal.
- TSP suo-moto identifies a subscriber as non-bona fide.
- Connections identified as fraud/involved in illegal activities by law enforcement agencies.

Africa

Full payment service bank licence in Nigeria

In April 2022, Airtel Africa’s subsidiary SMARTCASH Payment Service Bank Limited (‘Smartcash’) was granted final approval to operate a payment service bank (‘PSB’) business in Nigeria. The PSB licence is required for Airtel to provide mobile financial services in Nigeria, such as accepting cash deposits and carrying out payments and remittances, issuing debit and prepaid cards, operating electronic wallets and rendering other financial services.

Full super-agent licence in Nigeria

On November 14, 2021, Airtel Africa’s subsidiary Airtel Mobile Commerce Nigeria Ltd. was granted approval in principle by the Central Bank of Nigeria to operate as a super-agent in Nigeria. This was subsequently upgraded to approval for a full super-agent licence in April 2022. Under the super-agent licence, Airtel Africa is able to create an agent network that can service the customers of licensed Nigerian banks, payment service banks and licensed mobile money operators in Nigeria.

NIN-SIM linkage registration rules in Nigeria

Following a directive issued by the Nigerian Communications Commission (NCC) on December 7, 2020 to all Nigerian telecom operators, Airtel Nigeria has been working with the government to ensure that all its subscribers provide their valid National Identification Numbers (NINs) to update SIM registration records. To complete the registration process, Airtel Nigeria must link the NIN information received with the SIM of the respective subscribers and share the same with the National Identity Management Commission (NIMC).

The original regulatory directive set an initial deadline for customers to register (link) their NIN with their SIM by December 30, 2020. This was subsequently moved several times, with the last deadline being March 31, 2022. Airtel Nigeria was subsequently notified that with effect from April 4, 2022, all SIMs that had not been linked to a NIN were to be placed on ‘receive only’ status, meaning all their outgoing calls were barred with immediate effect. Subscribers of such lines can still link their SIMs to their NINs so that these restrictions can be lifted. Customers have therefore been given a final opportunity to fully comply with the latest registration requirements.

Airtel Nigeria has made significant progress on capturing the NINs of its customers and building the database in collaboration with NIMC. As at the end of April 2022, Airtel Nigeria had collated NIN information for 35.9 million active customers. Airtel Nigeria continues to work closely with the regulator and impacted customers to help them comply with the registration requirements, making every effort to minimise disruption and ensure affected customers can continue to benefit from full-service connectivity as soon as possible. This is in line with Airtel’s aim to drive increased connectivity and digital inclusion across Nigeria.

Kenya spectrum licences

On March 7, 2022, the Group announced that its Kenya subsidiary, Airtel Kenya Networks Limited (‘Airtel Kenya’), had entered into agreements with the Communications Authority of Kenya regarding its operating and spectrum licences, and received approval for the replacement of its temporary licence with a 10-year frequency licence for 2x10 MHz of spectrum in the 2100 MHz band.
Financial review

Consolidated figures

<table>
<thead>
<tr>
<th>Particulars</th>
<th>FY 2021-22</th>
<th>FY 2020-21</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>` in Mn</td>
<td>US$ Mn*</td>
</tr>
<tr>
<td>Gross revenue</td>
<td>1,165,469</td>
<td>15,673</td>
</tr>
<tr>
<td>EBITDA before exceptional items</td>
<td>581,103</td>
<td>7,815</td>
</tr>
<tr>
<td>Interest, Depreciation &amp; Others before exceptional items</td>
<td>473,258</td>
<td>6,364</td>
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<tr>
<td>Profit before exceptional items and Tax</td>
<td>107,845</td>
<td>1,450</td>
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<tr>
<td>Profit before tax</td>
<td>124,831</td>
<td>1,679</td>
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<tr>
<td>Tax expense</td>
<td>41,779</td>
<td>562</td>
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<tr>
<td>Profit for the year</td>
<td>42,549</td>
<td>572</td>
</tr>
<tr>
<td>Earnings per share from continuing and discontinued operations (Basic) (in ` / US$)*</td>
<td>7.67</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Note: All the financial figures for FY 2020-21 stated above, are re-casted to exclude the consolidated impact of Bharti Infratel Limited (now known as Indus Towers Limited).

Standalone figures

<table>
<thead>
<tr>
<th>Particulars</th>
<th>FY 2021-22</th>
<th>FY 2020-21</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>` in Mn</td>
<td>US$ Mn*</td>
</tr>
<tr>
<td>Gross revenue</td>
<td>706,419</td>
<td>9,500</td>
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<tr>
<td>EBITDA before exceptional items</td>
<td>355,984</td>
<td>4,787</td>
</tr>
<tr>
<td>Interest, Depreciation &amp; Others before exceptional items</td>
<td>378,230</td>
<td>5,087</td>
</tr>
<tr>
<td>Profit before exceptional items and Tax</td>
<td>(22,246)</td>
<td>(299)</td>
</tr>
<tr>
<td>Profit before tax</td>
<td>(42,342)</td>
<td>(569)</td>
</tr>
<tr>
<td>Tax expense</td>
<td>(6,092)</td>
<td>(82)</td>
</tr>
<tr>
<td>Profit for the year</td>
<td>(36,250)</td>
<td>(487)</td>
</tr>
<tr>
<td>Earnings per share from continuing and discontinued operations (Basic) (in ` / US$)*</td>
<td>(6.53)</td>
<td>(0.09)</td>
</tr>
</tbody>
</table>

Note: All the financial figures for FY 2020-21 stated above, are re-casted to exclude the consolidated impact of Indus Towers Limited.

The Company witnessed the highest ever consolidated revenues of `1,165,469 Mn, for the year ended March 31, 2022, as compared to `1,006,158 Mn (re-casted revenue `969,992 Mn) in the previous year, an increase of 15.8% (an increase of 20.2% on a re-casted basis). Full year revenues of India and South Asia stood at `824,877 Mn as compared to `726,980 Mn in the previous year, an increase of 13.5% (up 19.4% on a re-casted basis). The revenues across 14 countries of Africa, in constant currency terms, grew by 23.3%. Increase in revenue was majorly led by 4G customer addition and growth in data demand across the portfolio.
Management Discussion and Analysis

The Company incurred operating expenditure (excluding access charges, cost of goods sold, licence fees and CSR costs) of ₹384,621 Mn representing an increase of 13.6% over the previous year.

Consolidated EBITDA stood at ₹581,103 Mn, an increase by 25.9% over the previous year on reported basis. The Company’s EBITDA margin for the year increased to 49.9% as compared to 45.9% in the previous year, exhibiting Airtel’s continued focus on improving operational efficiencies.

Depreciation and amortisation costs for the year were higher by 12.5% and stood at ₹330,907 Mn as the Company continues to invest in future ready network.

Consequently, EBIT for the year was ₹248,531 Mn, increasing by 49.6% and resulting in a margin of 21.3% vis-à-vis 16.5% in the previous year.

Net finance costs stood at ₹163,835 Mn, higher by ₹15,816 Mn compared to the previous year mainly due to higher average borrowings related to Sub-GHz spectrum acquisition.

Consequently, the consolidated profit before taxes and exceptional items stood at ₹107,845 Mn compared to a profit of ₹22,586 Mn for the previous year.

Exceptional items during the year accounted for an impact of ₹7,271 Mn, comprising gain on account of sale of telecommunication tower assets, gain on account of settlement with a strategic vendor and net gain on account of transfer of spectrum rights to another telecom operator.

After accounting for exceptional items and Minority Interest, the resultant consolidated net profit for the year ended March 31, 2022 came in at ₹42,549 Mn as compared to a net loss of ₹150,835 Mn in the previous year.

The capital expenditure for the financial year ending March 31, 2022 was ₹256,616 Mn.

### Summary of sector specific key ratios

<table>
<thead>
<tr>
<th>Key Ratios</th>
<th>Unit</th>
<th>FY 2022</th>
<th>FY 2021</th>
<th>Y-o-Y %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capex Productivity</td>
<td>%</td>
<td>50.26</td>
<td>47.25</td>
<td>-3 p.p.</td>
</tr>
<tr>
<td>Opex Productivity</td>
<td>%</td>
<td>33.00</td>
<td>33.64</td>
<td>-1 p.p.</td>
</tr>
<tr>
<td>Interest Coverage Ratio</td>
<td>Times</td>
<td>4.36</td>
<td>3.62</td>
<td>20%</td>
</tr>
<tr>
<td>Net Debt to Shareholders’ Equity</td>
<td>Times</td>
<td>2.41</td>
<td>2.52</td>
<td>-4%</td>
</tr>
<tr>
<td>EBITDA Margin</td>
<td>%</td>
<td>49.86</td>
<td>45.86</td>
<td>4 p.p.</td>
</tr>
</tbody>
</table>

### Liquidity & Funding and Ratings

As on March 31, 2022, the Company had cash and cash equivalents of ₹60,959 Mn and short-term investments of ₹8,614 Mn. During the year ended March 31, 2022, the Company generated operating free cash flow of ₹324,487 Mn. The consolidated net debt, excluding lease obligations, stood at ₹1,235,439 Mn as on March 31, 2022 compared to ₹1,155,124 Mn as on March 31, 2021. Consolidated net debt for the Company, including the impact of leases, stood at ₹1,603,073 Mn as on March 31, 2022. The Net Debt-EBITDA ratio (USD terms LTM), including the impact of leases as on March 31, 2022 was 2.70x as compared to 3.26x as on March 31, 2021. The Net Debt-Equity ratio was 2.41x as on March 31, 2022 as compared to 2.52x as on March 31, 2021.

During the year, Airtel successfully completed application money leg of Rights Issue of up to ₹209,874 Mn with a subscription of approx. 1.44x, overbid by both public and promoter/promoter group. Airtel allotted 392,287,662 Rights Equity Shares to the eligible applicants, with ₹133.75 per share paid on application and balance to be paid in two more additional calls as maybe decided by the Board/Committee of the Board of the Company from time to time.

Airtel and Google to partner to help grow India’s digital ecosystem: Google is to invest up to $1 Bn in partnership with Airtel as part of its Google for India Digitization Fund. The deal includes an investment of $700 Mn to acquire 1.28% ownership in Airtel and up to $300 Mn towards potential multi-year commercial agreements. The partnership will focus on enabling affordable access to smartphones across price ranges, explore use cases for 5G and help accelerate cloud ecosystem for businesses across India.

CRISIL Ratings has upgraded its long-term rating on the bank facilities and debt program of Bharti Airtel Limited to ‘CRISIL AA+/Stable’ from ‘CRISIL AA/Stable’, and has reaffirmed the ‘CRISIL A1+’ rating on the commercial paper programme.

Airtel paid ₹155,191 Mn to DoT towards the prepayment of the entire deferred liabilities pertaining to spectrum acquired in the auction of year 2014. These liabilities were due in annual instalments from FY 2026-27 to FY 2031-32 and carried an interest rate of 10% (the highest rate amongst the deferred liabilities and borrowings) and an average residual life of 7+ years.

Airtel paid ₹88,145 Mn to DoT towards part prepayment of deferred liabilities pertaining to spectrum acquired in the auction of year 2015. The prepayment is for instalments due in FY 2026-27 and FY 2027-28. In totality, Airtel has cleared ₹243,336 Mn of its deferred spectrum liabilities, much ahead of scheduled maturities. These liabilities carried an interest rate of 10% and have been paid off through a combination of strong free cash generated by the business, equity proceeds and significantly lower cost debt of similar tenor.

Committee of the Board of the Company from time to time.
**Business overview: Segment-wise performance**

**B2C SERVICES**  
**Mobile Services: India**

**Overview**

In its constant endeavour to provide ubiquitous connectivity and differentiated network experience, Airtel has deployed the additional spectrum of 355.45 MHz across Sub GHz, mid band and 2,300 MHz bands, acquired in the last spectrum auctions. Airtel continues to explore the infinite opportunities which 5G technology has to offer. It has showcased 5G capabilities and entered into multiple strategic alliances for the same. As on March 31, 2022, Airtel’s customer base stood at 326.0 million. The minutes on the network have increased by 13.9% to 4,104 billion. The Company had 208.4 million data customers at the end of March 31, 2022, of which 200.8 million were mobile 4G customers. The increased penetration through bundles with high inbuilt data, has also led to the total MBs on the network to grow by 38.9% to 45,203 Bn MBs.

The Company’s unrelenting focus on winning quality customers by delivering differentiated experience has resulted in a strong 4G subscriber base increase. During the year, revenues increased by 13.7% to ₹632,054 Mn as compared to ₹555,677 Mn in the previous year on account of pricing intervention and 4G customer net additions. On re-casted basis, revenues increased by 21.7% as compared to ₹519,511 Mn in the previous year. The segment witnessed increase in the EBITDA margin to 49.6% during the year, compared to 43.7% in the last year. EBIT margin for the year increased to 12.6%, compared to 5.9% in the previous year.

The Company had 237,577 network towers, compared to 216,901 network towers in the last year. Mobile broadband (MBB) base stations were 752,136 at the end of the year, compared to 606,783 at the end of last year.

**Key figures**

<table>
<thead>
<tr>
<th>Particulars</th>
<th>FY 2021-22 ₹ in Mn</th>
<th>FY 2020-21 ₹ in Mn</th>
<th>Y-o-Y Growth %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Revenues</td>
<td>632,054</td>
<td>555,677</td>
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<td>EBIT</td>
<td>79,553</td>
<td>32,990</td>
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**Data and Voice usage**

<table>
<thead>
<tr>
<th>Year</th>
<th>Data Usage (Bn MBs)</th>
<th>Voice usage (Bn Mins)</th>
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</thead>
<tbody>
<tr>
<td>2019-20</td>
<td>21,020</td>
<td>3,035</td>
</tr>
<tr>
<td>2020-21</td>
<td>32,541</td>
<td>3,603</td>
</tr>
<tr>
<td>2021-22</td>
<td>45,203</td>
<td>4,104</td>
</tr>
</tbody>
</table>
Key highlights

Strategic alliances and partnerships
Airtel continues to forge business partnerships with an aim to provide seamless customer experience with greater value proposition to end users.

- Airtel and Intel announced a collaboration to accelerate 5G in India. The collaboration is part of Airtel’s 5G roadmap for India as it transforms its networks to allow its customers to reap the full possibilities of the hyper connected world where Industry 4.0 to cloud gaming and virtual/augmented reality become an everyday experience. As members of the O-RAN Alliance, Airtel and Intel will work closely for developing a range of Make in India 5G solutions and enabling world-class telecom infrastructure in India through local partners.

- The Company is collaborating with Tata Group/TCS for ‘Made in India’ 5G. Tata Group has developed a state-of-the-art O-RAN based Radio & NSA/SA Core and has integrated a totally indigenous telecom stack, leveraging the Group’s capabilities and that of its partners. Airtel will pilot and deploy this indigenous solution as part of its 5G rollout plans in India as per the guidelines formulated by the Government of India.

- Airtel and TCS successfully tested innovative use cases from TCS’ Neural Manufacturing™ solutions suite on Airtel’s ultra-fast and low latency 5G network. TCS successfully tested two use cases on Airtel’s 5G testbed – remote robotics operations and vision-based quality inspection, demonstrating how TCS’ Neural Manufacturing™ solutions and 5G technology can transform industrial operations and significantly boost quality, productivity and safety. The demonstration was done at Airtel’s 5G Lab in Manesar (Gurgaon).

- The Company partnered with global cybersecurity company Kaspersky to ensure instant security for internet users in India. The collaboration between the two companies will allow Airtel customers to purchase Kaspersky Total Security solution directly from the Airtel Thanks app in a matter of a few clicks. Airtel customers can also enjoy exclusive deals on these advanced solutions from Kaspersky.

- Its partnership with Apollo 24/7, the fastest growing health app in India, enables Airtel to offer a wide range of e-healthcare services to its customers as part of its exclusive Thanks benefits. Airtel Platinum and Gold customers will get complimentary membership to Apollo Circle – a one-of-its-kind program that makes healthcare access simpler through digital technologies.

- Airtel and Tech Mahindra announced a strategic partnership to build and market innovative solutions for India’s digital economy by bringing together their core strengths. They will co-develop and market 5G use cases in India and set up a joint 5G innovation lab for developing Make in India use cases for the Indian and global markets.

The two companies will also bring to the market customised Enterprise Grade Private Networks, which will be at the core of the digital economy. The companies will initially focus on segments such as Automobiles, Aviation, Ports, Utilities, Chemicals, Oil & Gas and expand to other industries going forward. Airtel and Tech Mahindra will also offer secure cloud and Content Delivery Network (CDN) solutions to businesses. Further, the two companies will explore leveraging Tech Mahindra’s technological expertise to support Airtel in cloud engineering and implementation of tools for cloud orchestration.

Mergers, acquisitions and disinvestments
Airtel concluded a host of M&A transactions as part of its growth and diversification strategy and to harness economies of scale resulting from the consolidations:

- The Company has purchased additional 4.7% equity interest in Indus Towers from Vodafone Plc at ₹187.88 per share. The said acquisition was at an attractive price, representing a significant discount typically available for such large block transactions. This shall be value-accrative to Airtel and will protect its existing significant shareholding in Indus Towers.

- Airtel acquired an additional 2.86% stake in Vahan Inc. as part of its Startup Accelerator Program, which supports the growth of early stage tech startups and partners with them in building significant scale to achieve their vision. Vahan uses Artificial Intelligence based technology to match job seekers and employers.

- Under its Startup Accelerator Program, Airtel agreed to acquire a strategic stake in Aqilliz – a Blockchain as a Service Company. Singapore-based Aqilliz has developed a patented hybrid blockchain platform, Atom, that integrates differential privacy and federated learning on a distributed digital ledger. This allows brands to create secure and consent-based solutions to engage with customers in a rapidly evolving digital economy that is becoming increasingly decentralised. Airtel plans to deploy Aqilliz’s advanced blockchain technologies at scale across its fast-growing Adtech (Airtel Ads), Digital Entertainment (Wynk Music & Airtel Xstream) and Digital Marketplace (Airtel Thanks App) offerings.

Network expansion and transformation
Airtel remains committed to delivering a world-class network experience to the high value customer through various initiatives:

- Airtel now has Sub-Ghz spectrum pan-India to enable deeper indoor penetration and cover a larger population footprint than ever before. Spectrum addition in 1800, 2,100 and 2,300 bands will help address capacity needs due to ever-increasing data consumption, resulting in much improved experience. For this exercise, the Company added Sub-Ghz at ~109k sites pan-India. The deployment will strengthen an already superior network for Airtel customers across the states. It will enable improved network availability and data speeds along with better
coverage inside homes and buildings in cities and urban areas. The deployment also allows Airtel to offer wider coverage along highways and rail routes as well as increase footprint in villages as more people access high speed data services.

› In partnership with Nokia, Airtel conducted India’s first 5G trial in the 700 MHz band:
  - The demo conducted using 5G Standalone (SA) mode, achieved the highest broadband coverage of 40 km between two 5G test sites.
  - Conducted on the outskirts of Kolkata, the trial underscores 5G’s potential to take mobile broadband coverage to the remotest corners of India.

› With Ericsson, Airtel conducted India’s first rural 5G trial. The demonstration took place in Bhaipur Bramanan village on the outskirts of Delhi/NCR using 5G trial spectrum allocated to Airtel by DoT. The trial showcases the massive potential offered by 5G towards bridging the digital divide by enabling access to high speed broadband through solutions such as enhanced mobile broadband (eMBB) and Fixed Wireless Access (FWA) services.

› Airtel hosted the O-RAN Alliance Global PlugFest 2021 in India in partnership with leading global and Indian technology companies. The event was conducted at Airtel’s state-of-the-art Network Experience Centre in Manesar (Gurugram), India. This was the second O-RAN ALLIANCE Global PlugFest hosted in India by Airtel. This year’s edition saw wider participation from members of the global O-RAN community. Airtel was joined by AMI, ASOCS, Capgemini Engineering, Cisco, Intel, IP Infusion, Keysight Technologies, Mavenir, Sercomm, STL, TCS, VIAVI Solutions, VMware and VVDN.

Digital innovations and customer delight
In the face of rapidly changing customer demands, Airtel consistently spurred digital innovations to nurture its customer journey across all touch points and to have a highly engaged customer force by providing an exceptional customer experience:

› Airtel showcased 5G’s high-speed, low latency capabilities to transform the future of video entertainment and take the user experience to the next level. Using cutting-edge immersive video technologies over its high speed 5G test network, Airtel recreated the in-stadia experience of Kapil Dev’s famous 175 not out vs Zimbabwe during the 1983 Cricket World Cup. A special 175 replayed video, in 4K mode, brought key moments from the match to life despite there being no video footage of the match due to a strike by TV technicians. With speeds of over 1 Gbps and latency of under 20 ms, more than 50 concurrent users enjoyed a highly personalised 4K video experience of the match on 5G smartphones, with real-time access to multiple camera angles, 360-degree in-stadia view, shot analysis and stats. The session was made even more exciting with India’s first 5G powered hologram interaction with Kapil Dev.

› Airtel Xstream Premium, an industry first video streaming service, was launched by the Company to aggregate content from 14 leading video apps with a single login, single search and single subscription. It is exclusively available to Airtel customers for viewing across all screens (TV, Smartphone, Tablets and PC). Airtel is targeting significant subscriptions through this disruptive offering and is collaborating with many more OTT players to make Airtel Xstream Premium the go-to destination for digital entertainment in India.

› In partnership with Axis Bank, Airtel will be strengthening the growth of India’s digital ecosystem through a range of financial solutions. In a bid to accelerate adoption of digital payments in the country, over the coming months, Airtel and Axis Bank will bring to the market a range of innovative financial offerings and digital services exclusively for Airtel’s customers. These will include co-branded credit card with industry leading benefits, pre-approved instant loans, Buy Now Pay Later offerings and many more. The alliance, with its significant reach across the country will help penetrate Tier II and Tier III markets by enabling higher adoption of digitised payments. The partnership kicked-off with the launch of the first-of-its-kind ‘Airtel Axis Bank Credit Card’ that will offer a host of attractive benefits such as cashbacks, special discounts, digital vouchers and complimentary services to Airtel customers.

› Airtel loans: The Company launched an industry-first proprietary lending model combining Telco and Credit Bureau scores.

› Airtel Payments Bank launched DigiGold – a digital platform for customers to make investments in gold. With DigiGold, Airtel Payments Bank’s savings account customers can invest in 24K gold using the Airtel Thanks app. Customers can also gift DigiGold to their family and friends, who have a savings account with Airtel Payments Bank. There is no minimum investment value requirement and customers can start with as low as one rupee.

Awards
Airtel’s A-SON (Self Optimising Network) solution won the Innovative Mobile Service and Application Award at GTI Awards 2022. A-SON has been fully developed by Airtel’s in-house network and digital engineering teams for proactive auto optimisation of mobile networks, especially TDD (1800 MHz) to ensure that Airtel customers enjoy world-class high-speed data and voice experience. The solution has been deployed by Airtel across its mobile network operations. The innovation is future ready to address similar and new challenges in the 5G domain.

Homes Services
Overview
The Homes Business continues to expand its footprint with accelerated Local Cable Operator (LCO) rollout, and is now present in 847 cities across India. Demand for data has
remained robust due to the shift in preference towards remote and hybrid work culture and growing adaption to digitisation in Tier II and Tier III towns. This has led to strong customer base addition during the year, which stands at 4.48 million customers at the end of the year, representing a growth of 46% as compared to 3.07 million at the end of the previous year. During the year, the Company scaled up its operations with the launch of Airtel fiber in 556 new towns and increased its coverage by rolling out new fiber across major cities of its operations, thus helping the country advance towards the vision of Digital India. Further, overhauling of the network from copper to FTTH continued during the year as the Company approaches the final phase of making its network copper free. Revenues from Homes Services stood at ₹30,390 Mn for the year ended March 31, 2022, as compared to ₹23,342 Mn in the previous year, an increase of 30.2%. EBITDA margin during the year was 53.1%.

### Key highlights

- The Company launched the ‘Koi Load Nahi’ campaign with an objective of positioning Airtel Xstream Fiber as the only Broadband service provider that can connect upto 60 devices.
- To elevate customer experience, the Company launched Airtel Black, India’s first quad play convergence product, offering Broadband, mobility and DTH under one umbrella.
- True to the Airtel spirit of ‘winning customers for life’, the Company came up with a solution named ‘Wi-fi Hub’ that is a self-care tool for customers to troubleshoot wi-fi issues with the click of a button; the tool is embedded in Airtel Thanks app for easy access and has helped reduce customer interactions on call centres and e-mail centres.
- Airtel entered into a partnership with Netflix to offer distinguished proposition of premium content on Airtel’s Hi-Speed internet plans.

### Homes Services snapshot

<table>
<thead>
<tr>
<th>Particulars</th>
<th>FY 2021-22 ₹ in Mn</th>
<th>FY 2020-21 ₹ in Mn</th>
<th>Y-o-Y Growth %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Revenues</td>
<td>30,390</td>
<td>23,342</td>
<td>30</td>
</tr>
<tr>
<td>EBIT</td>
<td>5,766</td>
<td>5,203</td>
<td>11</td>
</tr>
</tbody>
</table>

### Home Subscribers (Mn)

- 2019-20: 2.4
- 2020-21: 3.1
- 2021-22: 4.5

- 2019-20
- 2020-21
- 2021-22
Digital TV Services

Overview

Airtel Digital TV continues to hold its market standing with a strong customer base of 17.6 million. The Company has witnessed a step-up in customer additions on its Xstream Box (4K Android Box), premium HD content and OTT offerings. With operations across 639 districts across India, Airtel DTH is a pioneer in launching innovative products for its customers, along with best-in-class customer service, making it one of the fastest growing DTH operators in the country.

The Company currently offers 670 channels including 84 HD channels, 56 SVOD services, 5 international channels and 4 interactive services.

Airtel Digital TV launched new OTT bundled subscription plans which provide access to Linear Pay TV and OTT streaming apps such as Xstream Premium, Disney+Hotstar, Amazon Prime Video and ZEE5. During the year, the Company saw strong demand for this first-of-its-kind android box and currently has 900,000+ active users.

Digital TV Services snapshot

<table>
<thead>
<tr>
<th>Particulars</th>
<th>FY 2021-22 ₹ in Mn</th>
<th>FY 2020-21 ₹ in Mn</th>
<th>Y-o-Y Growth %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Revenues</td>
<td>31,538</td>
<td>30,562</td>
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<tr>
<td>EBIT</td>
<td>8,374</td>
<td>11,011</td>
<td>-24</td>
</tr>
</tbody>
</table>

Key highlights

› During the year, the Company launched Airtel Black (a converged home proposition with DTH, Broadband and mobile services). Airtel Black is India’s first all-in-one solution for Homes, which creates greater customer convenience with one bill, one customer care number, a dedicated relationship manager, amazing value and zero switching cost. With this, Airtel Digital TV has further strengthened its position in converged homes across the country.

› The Company has also simplified the content discovery journey on the Xstream box, where the customer can see the titles of new shows and movies from various OTT apps on the home screen, and can directly purchase OTT subscription plans through the newly launched MyStore app on Xstream Box at a one-click payment by scanning the QR code from the TV screen or directly through Airtel Thanks app.

› Airtel has introduced Made-in-India high definition set top boxes for customers. The set top boxes are manufactured in Noida, Uttar Pradesh by Skyworth Electronics. Airtel plans to fully transition to Made-in-India set top boxes, including the high-end Airtel Xstream 4K Android TV Box by the end of 2022 and contribute to local manufacturing and furthering the Government of India’s vision of Atmanirbhar Bharat.
Management Discussion and Analysis

B2B Services
Airtel Business

Overview
Airtel Business is India’s leading and most trusted ICT service provider and offers a diverse portfolio of services to enterprises, governments, global carriers, OTT players and small and medium businesses. Airtel Business constantly provides innovative integrated solutions, superior customer service and unmatched depth/reach to global markets. Along with voice and data, its services also include network integration, data centres, managed services and enterprise mobility applications.

Global Business, the international arm of Airtel Business, offers an integrated suite of global and local connectivity solutions, spanning voice and data to the carriers, Telcos, OTTs, large multinationals and content owners globally.

Airtel’s international infrastructure includes the ownership of 12 submarine cable system, which connects Chennai to Singapore, and consortium ownership of submarine cable systems like Southeast Asia-Middle East-Western Europe – 4 (SWM4), Asia America Gateway (AAG), India-Middle East-Western Europe (IMEWE), Unity, Europe India Gateway (EIG) and East Africa Submarine System (EASSY). Along with these seven owned subsea cables, Airtel Business has a capacity on 33 other cables across various geographies.

Its global network runs across 365,000+ Rkms (including IRU) with over 1,200 customers, covering 50 countries and five continents and 65 Global PoPs (Point of Presence). This is further interconnected with its domestic network in India and direct terrestrial cables to SAARC countries, thus helping accelerate India’s emergence as a preferred transit hub.

Leveraging the direct presence of Airtel Mobile operations in 16 countries across Asia and Africa, Global Business also offers mobile solutions (ITFS, signalling hubs, messaging) along with managed services and SatCom solutions. Global Business is also providing advanced consumers solutions like IoT to global customers.

The business witnessed a year of growth, led by the surge in global and domestic data revenues. Revenues for the year grew by 12% as compared to the previous year. The Company continued to focus on winning in the core business while building upon new revenue streams and emerging businesses in the areas of IoT, CPaaS (Airtel IQ), cloud, security and data centres.

Airtel Business snapshot

<table>
<thead>
<tr>
<th>Particulars</th>
<th>FY 2021-22</th>
<th>FY 2020-21</th>
<th>YoY Growth</th>
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<tbody>
<tr>
<td>Gross Revenues</td>
<td>₹ 160,702</td>
<td>₹ 144,075</td>
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<tr>
<td>EBIT</td>
<td>₹ 44,943</td>
<td>₹ 39,750</td>
<td>13</td>
</tr>
</tbody>
</table>

Key highlights

Airtel joined SEA-ME-WE-6 undersea cable consortium to scale up high speed network for India’s emerging digital economy
- This strengthened its cable system in India while adding to the capacity and diversity of its vast global undersea network. The cable system will be fully integrated with Nxtra by Airtel’s data centres to deliver seamless services to customers. The 19,200 Rkm SEA-ME-WE-6 will connect Singapore and France, and will be amongst the largest undersea cable systems globally. Airtel is participating as a major investor in the SEA-ME-WE-6 and is anchoring 20% of the overall investment in the cable system, which will go live in 2025.

Airtel acquired ~25% strategic stake in SD-WAN startup Lavelle Networks
- This boosts Airtel Business’ Network-as-a-Service (NaaS) portfolio as enterprises look to deploy software defined networks to support their digital transformation journeys.

Airtel strengthened its green energy footprint with the commissioning of the 21 MW solar power unit in Maharashtra
- The captive unit will supply clean energy to Airtel’s data centres and switching centres in Maharashtra state and lead to the reduction in its carbon emissions by 25,517 tonnes annually. Spread over 80 acres, the unit has been set up by Airtel in partnership with Avaada to supply clean energy to Nxtra by Airtel’s data centres and switching centres in the state.
- The year saw Airtel’s formation of a joint venture with Hughes Communications India Private Limited to provide satellite broadband services in India. Operational as HCIPL, the entity has a combined base of over 200,000 VSATs. Combined India VSAT operations of both companies will offer a wide range of satellite and hybrid network solutions to business and government customers.

Airtel and Capgemini to collaborate on 5G-based solutions for enterprises
- Airtel and Capgemini will bring together their experience in connectivity and 5G solutioning, and System Integration (SI) capabilities to co-innovate a range of India-focused use cases.

Nxtra by Airtel launches new 38 MW Hyperscale Data Center in Chennai
- Nxtra by Airtel’s third large data centre in Chennai further consolidates its leadership in India, with a footprint now in 12 large and 120 edge data centres. The new data centre is fully integrated with Airtel’s global submarine cable network to offer end-to-end solutions to customers.
Airtel and Oracle double down on partnership to accelerate India’s digital economy

Oracle will be leveraging Nxtra by Airtel’s data centre network to expand its cloud presence in India. Airtel Business will be offering Oracle Cloud Infrastructure (OCI) to its million plus enterprise customers. The two companies will be setting up a joint Cloud Centre of Excellence in Gurugram for emerging cloud technologies and IP development.

The launch of the IQ platform by Airtel will enable organisations to embed real-time voice, messaging and video channels into their ecosystem using programmable APIs. This unified cloud communications platform will help them achieve hassle-free communications, increased productivity, cost-effectiveness, a significant decrease in customer complaints and much more. Airtel IQ offers three products: Airtel IQ Voice, Airtel IQ Messaging and Airtel IQ Video.

Investment of ₹5,000 crores to scale up Airtel’s data centre business

The investment will further cement Nxtra by Airtel as India’s largest network of hyperscale and edge data centres. This will triple Nxtra by Airtel’s data centre capacity to over 400 MW by 2025 and position it well to meet the surging demand in India’s fast growing digital economy.

Airtel has partnered with Google, Cisco and Kaspersky to launch ‘Airtel Office Internet’

This will provide a unified enterprise-grade solution for the emerging digital connectivity needs of small businesses, SOHOs and early-stage tech startups. Airtel Office Internet brings together secure high-speed data connectivity, conferencing and business productivity tools as a unified solution with one plan and one bill.

Airtel Business and Cisco launch next-gen SD-WAN connectivity solutions for enterprises

The solution will enable businesses, large and small, to accelerate their digital transformation to serve their customers in a connected world. It allows enterprises to design, deploy, configure, migrate, and manage their WAN infrastructure at a fast clip while adapting to the real-time demands of their cloud computing, mobility, and digitisation needs.

Launch of ‘Airtel IoT’, a 5G ready platform for the world of connected things

Airtel IoT is an end-to-end platform with the capability to connect and manage billions of devices and applications in a highly secure and seamless fashion. At its core is Airtel’s robust 5G ready network that comes with the option to deploy NB-IoT, 4G or 2G connectivity using Airtel e-SIM technology. It also has a flexible set of APIs to eliminate cumbersome integration journeys and allows enterprises to streamline the process of connecting, collecting, and analysing data through their existing workflow tools. More importantly, Airtel’s telco grade security helps enterprises ensure that their IoT data is safe and available in real time for analytics and service delivery.

Awards and recognition

Airtel Business won the Innovative Telecom Solution Award at Aegis Graham Bell Awards 2022 for Airtel IQ

Airtel Business bagged the following prestigious awards at the CIO Choice Awards 2022:

- Telecom Carrier – International access
- Colocation (Nxtra by Airtel)

Africa

Overview

Financial and operational review

Through its portfolio of offerings, Airtel Africa is helping transform lives across Sub-Saharan Africa by fostering financial inclusion, driving digitalisation and empowering the Company’s 128.4 million customers across 14 countries, up from 118.2 million customers in the previous year. This represents an 8.7% growth in the customer base, largely the result of expansion of both the Company’s mobile network and its distribution network, helping it get closer to its customers and improving their network experience.

Total minutes on the network during the year increased by 17.3% to 378.7 billion. Data customers increased by 6.1 million to 46.7 million, accounting for 36.4% of the total customer base compared to 34.3% in the previous year. The total MBs of data transmitted on the network increased by 48.7% to 1,847.8 Bn MBs, with usage per customer increasing from 2,686 MBs to 3,520 MBs. Total sites in Africa on March 31, 2022 were 28,797, of which 27,782 are mobile broadband towers, representing 96.5% of the total sites.

In INR reported currency, Airtel Africa revenues grew by 21.5% to ₹350,612 Mn as compared to ₹288,633 Mn in the previous year. The Company’s continued focus on running the operations efficiently and cost effectively has resulted in EBITDA of ₹172,071 Mn for FY 2021-22 against ₹132,980 Mn in the previous year, registering an increase of 29.4%. Consequently, the EBITDA margin improved by 3 p.p. to 49.1% vs 46.1% in the previous year. Depreciation and amortisation charges stood at ₹55,323 Mn compared to ₹50,561 Mn in the previous year. EBIT for the year was ₹116,586 Mn against ₹81,957 Mn in FY 2020-21. PBT for the full year stood at ₹86,289 Mn as compared to ₹50,289 Mn in the previous year. The full year capex was ₹48,891 Mn vis à vis ₹45,429 Mn in the previous year.
Management Discussion and Analysis

Airtel Africa snapshot

<table>
<thead>
<tr>
<th>Particulars</th>
<th>FY 2021-22 in Mn</th>
<th>FY 2020-21 in Mn</th>
<th>YoY Growth %</th>
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<tr>
<td>Gross Revenues</td>
<td>350,612</td>
<td>288,633</td>
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<tr>
<td>EBIT</td>
<td>116,586</td>
<td>81,957</td>
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Wireless Subscribers: Africa – 14 Countries (Mn)

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<thead>
<tr>
<th>Year</th>
<th>2019-20</th>
<th>2020-21</th>
<th>2021-22</th>
</tr>
</thead>
<tbody>
<tr>
<td>110.6</td>
<td>118.2</td>
<td>128.4</td>
<td></td>
</tr>
</tbody>
</table>

Key highlights

Early Bond redemption
› In March 2022, Airtel Africa confirmed that it had completed the early repayment of its $505 Mn 5.125% Guaranteed Senior Notes, originally due in March 2023, using cash balances available at Airtel Africa Group level. Settlement included all outstanding accrued interest up to the redemption date of March 7, 2022. One-off costs of $19 Mn, including applicable premium, have been recorded under non-operating exceptional items, while the Group will save an aggregate of c.$26 Mn on interest payments from early redemption.

Completion of Airtel Nigeria minority buyout offer
› On December 2, 2021, further to the buyout offer announcement on October 4, 2021, Airtel Africa announced the completion of the minority shareholding buyback of Airtel Networks Limited (‘Airtel Nigeria’), a subsidiary of Airtel Africa plc and a leading provider of telecommunication services in Nigeria. The purchase consideration for the 8.22% minority shareholdings acquired under the buyback was NGN 67.6 Bn, equivalent to $163 Mn, including directly attributable transaction costs.

Tower sales
› On March 25, 2022 and November 3, 2021, Airtel Africa announced the first closing of transactions to sell its telecommunications tower companies in Malawi and Madagascar respectively, to Helios Towers plc, a leading independent telecommunications infrastructure company in Africa.

Strategic investments in Airtel Africa’s mobile money business
› Airtel Africa signed agreements with Qatar Holding LLC, an affiliate of the Qatar Investment Authority (‘QIA’), regarding their investment of $200 Mn in Airtel Mobile Commerce BV (‘AMC BV’), a subsidiary of Airtel Africa plc. AMC BV is the holding company for several Companies having Airtel Africa’s mobile money operations; and ultimately is intended to own and operate the mobile money businesses across all of Airtel Africa’s 14 operating countries.

Partnership with UNICEF
› On November 1, 2021, Airtel Africa and UNICEF announced a five-year pan-African partnership to help accelerate the roll-out of digital learning through connecting schools to the internet and ensuring free access to learning platforms across 13 countries. By providing equal access to quality digital learning, particularly for the most vulnerable children, the partnership will help ensure that every child reaches their full potential.

South Asia Overview
The full year revenue of South Asia stood at ₹3,869 Mn vis-à-vis ₹4,246 Mn in the previous year. EBIT losses for the year reported at ₹2,422 Mn as compared to a loss of ₹1,321 Mn in the previous year. Capex for the year was ₹3,292 Mn against ₹3,686 Mn in the previous year.

South Asia business snapshot

<table>
<thead>
<tr>
<th>Particulars</th>
<th>FY 2021-22 in Mn</th>
<th>FY 2020-21 in Mn</th>
<th>YoY Growth %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Revenues</td>
<td>3,869</td>
<td>4,246</td>
<td>-9</td>
</tr>
<tr>
<td>EBIT</td>
<td>(2,422)</td>
<td>(1,321)</td>
<td>-83</td>
</tr>
</tbody>
</table>
### Share of associates/Joint ventures

**Robi Axiata Limited**

Robi Axiata Limited is a joint venture (JV) between Axiata Group Berhad of Malaysia and Bharti Airtel Limited. Airtel holds 28.18% in the entity.

### Key operational and financial performance

#### Robi Axiata Limited

<table>
<thead>
<tr>
<th>Operation performance</th>
<th>Unit</th>
<th>March 2022</th>
<th>December 2021</th>
<th>September 2021</th>
<th>June 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Base</td>
<td>000's</td>
<td>54,073</td>
<td>53,673</td>
<td>53,043</td>
<td>51,844</td>
</tr>
<tr>
<td>Data Customer as % of Customer Base</td>
<td>%</td>
<td>73.4</td>
<td>73.7</td>
<td>73.8</td>
<td>72.4</td>
</tr>
<tr>
<td>ARPU*</td>
<td>BDT</td>
<td>121</td>
<td>122</td>
<td>127</td>
<td>125</td>
</tr>
</tbody>
</table>

#### Financial Highlights

**Total revenues**

<table>
<thead>
<tr>
<th>Period</th>
<th>Unit</th>
<th>March 2022</th>
<th>December 2021</th>
<th>September 2021</th>
<th>June 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total revenues</td>
<td>` in Mn</td>
<td>4,975</td>
<td>5,013</td>
<td>5,110</td>
<td>4,966</td>
</tr>
<tr>
<td>EBITDA</td>
<td>` in Mn</td>
<td>2,097</td>
<td>1,914</td>
<td>2,111</td>
<td>2,089</td>
</tr>
<tr>
<td>EBITDA/Total revenues</td>
<td>%</td>
<td>42.2</td>
<td>38.2</td>
<td>41.3</td>
<td>42.1</td>
</tr>
<tr>
<td>Net Income</td>
<td>` in Mn</td>
<td>98</td>
<td>32</td>
<td>212</td>
<td>114</td>
</tr>
</tbody>
</table>

*As per Axiata published financials

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#### Airtel Payments Bank Limited

### Key operational and financial performance

<table>
<thead>
<tr>
<th>Operation performance</th>
<th>Unit</th>
<th>March 2022</th>
<th>December 2021</th>
<th>September 2021</th>
<th>June 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly Transacting Users (MTU)</td>
<td>000's</td>
<td>36,720</td>
<td>32,425</td>
<td>31,210</td>
<td>26,924</td>
</tr>
<tr>
<td>Total Customers</td>
<td>000's</td>
<td>129,360</td>
<td>122,394</td>
<td>115,369</td>
<td>100,456</td>
</tr>
<tr>
<td>GMV</td>
<td>` in Mn</td>
<td>385,197</td>
<td>371,217</td>
<td>320,900</td>
<td>256,674</td>
</tr>
</tbody>
</table>

#### Financial Highlights

**Total revenues**

<table>
<thead>
<tr>
<th>Period</th>
<th>Unit</th>
<th>March 2022</th>
<th>December 2021</th>
<th>September 2021</th>
<th>June 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total revenues</td>
<td>` in Mn</td>
<td>1,869</td>
<td>1,746</td>
<td>1,888</td>
<td>1,497</td>
</tr>
<tr>
<td>EBITDA</td>
<td>` in Mn</td>
<td>153</td>
<td>127</td>
<td>84</td>
<td>(151)</td>
</tr>
<tr>
<td>EBITDA/Total revenues</td>
<td>%</td>
<td>8.2</td>
<td>7.3</td>
<td>4.5</td>
<td>-10.1</td>
</tr>
<tr>
<td>Net Income</td>
<td>` in Mn</td>
<td>105</td>
<td>83</td>
<td>46</td>
<td>(189)</td>
</tr>
</tbody>
</table>

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Outlook

India is expected to maintain strong growth with the pole position as the fastest growing major economy, while the global economy is expected to witness some slowdown in growth Y-o-Y, vis à vis the sharp recovery last year and recent concerns due to the Russia-Ukraine conflict. India’s strong growth will be fuelled by the digital highways created by the telecom and digital players over the last few years. More and more users are now leveraging the digital infrastructure for day-to-day activities including remote working, payments, entertainment, education, health services and many more. India continued to witness strong smartphone shipments as 2021 – 161 million^ smartphones – up 7% Y-o-Y, even as supply and pandemic-related challenges created disruptions during the year. Increasing smartphone penetration will fuel the 2G to 4G uptrading, opening up higher revenue opportunities for mobile data services as well as digital services. Equally, with increasing use cases and consumption, data usage per user continues to rise, becoming one of the highest globally, while tariffs continue to be among the lowest globally with a substantial headroom for hikes. India’s telecom market continues to be dominated by the prepaid segment, the postpaid segment still underpenetrated. Upgrading of customers to high value postpaid remains a lucrative opportunity for the industry going forward.

In addition to wireless data, home broadband is becoming more and more ubiquitous with increased remote working and in-house entertainment. With COVID-19 providing the push, home broadband is expected to explode and grow exponentially over the next few years. Continued increase in wireless and wireline data penetration is driving multifold growth in usage and adoption of digital services, opening up opportunities for content, music streaming, digital advertising, payments, fintech and digital marketplace.

On the enterprise side, the market is dynamically changing with emerging categories and adjacencies including data centres, security, cloud, CPaaS and IoT now accelerating. Africa continues to provide huge potential across data, voice and mobile money given increasing purchasing power, rapid urbanisation, rising middle class and growing smartphone penetration.

With an investment of over $46 Bn, Airtel has contributed towards the creation of massive digital highways for India and built a future-proofed business across mobile wireless, home broadband, digital TV, enterprise solutions and adjacent digital services including Airtel Payments Bank. Airtel is well-positioned to lead the growth by leveraging its strengths and taking prudent bets around different emerging opportunities. The ability to offer converged solutions along with specialised services puts Airtel in a sweet spot to drive the growth prospects going forward.

A customer-obsessed Airtel currently stands firm on this cusp with a robust future-ready growth engine ably supported by a fantastic team of professionals and partners and a strong balance sheet, ready to scale newer heights.

^ According to the International Data Corporation’s (IDC) Worldwide Quarterly Mobile Phone Tracker
**Strengths**

- **Prominent player:** One of the leading telecom players in India and amongst top 3 globally in terms of consolidated mobile connections; ranking #1 and #2 in 13 out of 14 African countries
- **Premium brand:** Strong, well-recognised and unified brand across all geographies where present; ability to drive segmentation and premiumisation
- **Services at scale:** Serving over 491 million customers across 17 countries in multiple segments including mobile services, home broadband, digital TV, enterprise business, digital services and mobile money; over 189 million MAUs on digital assets and 36.7 million MTU in Airtel Payment Bank in India
- **Strong digital platform:** Robust digital services comprising 5 unicorn equivalents: Wynk Music, Airtel IQ, Airtel Ads, Airtel Payments Bank, Nxtra by Airtel
- **Convergence play:** Only operator with potential to offer a full gamut of services to high value homes: mobile, fixed voice, broadband, OTT and DTH
- **Robust network:** Future-proofed and 5G ready network, with India’s first 5G demonstration on a live commercial network, first rural 5G trial and first cloud gaming experience on 5G; successfully conducted 5G trials to test Airtel’s 5G architectural capabilities across radio, core and transport
- **Strong partnerships:** Entered into strategic partnerships with multiple companies across the world to enable delivery of an array of consumer and enterprise services through the Airtel platform
- **Omni-channel capabilities:** Achieved true omni-channel capability, with a redefined organisation structure
- **Strong corporate governance:** Highest standards of corporate, financial and operational disclosures. Rated highest GVC Level 1 by CRISIL for corporate governance practices and value creation

**Challenges**

- **Operation integration:** Integrating operations and leveraging common platform across geographically and demographically diverse regions such as India, South Asia and Africa
- **High spectrum cost:** Heavy spectrum investments required on continuous basis, impacting the company’s leverage and return ratios
- **Evolving customer requirements:** Understanding evolving customer perceptions in a fast-changing multi-cultural and multi-lingual environment
- **Low return ratios:** Given depressed ARPs at the industry level, return ratios continue to stay low for the industry

**Opportunities**

- **Improved industry dynamics:** Consolidation through mergers and exits of various telcos along with tariff hike in the industry have improved industry dynamics
- **ARPU opportunity:** Given the intense competition in the past with the entry of new players, India’s ARPs are currently among one of the lowest in the world. Any increase in ARPUs going forward can translate into substantial benefit to return ratios for the industry
- **Postpaid under penetration:** With only ~4% share of postpaid in India, postpaid can act as a massive opportunity in the coming years
- **Smartphone penetration:** India’s wireless mobile broadband penetration at ~67% is still low; as customers uptrade from feature phone to smartphones, demand is expected to increase
- **Broadband market exploding:** Fixed broadband continues to be underpenetrated in India; With the COVID-19 tailwinds, higher remote working and increased home entertainment, the home broadband market serves a big opportunity
- **B2B emerging categories accelerating:** Along with pure connectivity and sub-marine cables related opportunities, new age businesses are also gaining momentum in the B2B space
- **Digital flywheel:** Creating an ecosystem for digital services including Adtech, CPaaS, entertainment, music, digital marketplace, payments bank by leveraging core telco strengths: data, network, payment and distribution

**Threats**

- **Increased competition:** Probability of future pressures due to increased price competition or entry of new players in the markets where the Company operates
- **Regulatory changes:** Possible political instability and uncertainties in the economic environment across regions along with any adverse litigation verdict
- **Currency exposures:** Volatility in currencies due to global macro-economic uncertainties, global trade tensions and the ongoing pandemic
- **Pandemic/Disaster/War:** Any pandemic or natural disaster like the current COVID-19 health crisis or war-related disturbances in the geographies where the Company runs operations
Material developments in HR

The developments in 2020 triggered by the COVID-19 pandemic were unprecedented and led to far-reaching changes for businesses, individuals and communities. In 2021, as employees started coming back to office, Airtel saw a mindset shift as employees began asking very pertinent questions about the work they perform. Why am I doing this? What is it for? How can the Company do it better? The competition to attract new talent and retain top talent grew fiercer than ever.

At Airtel, the HR team played a pivotal role in leading the organisation to a new future of work – one that has the potential to be more diverse and inclusive, more purposeful and one that can deliver more positive impact for its people and customers.

Airtel launched its renewed Employee Value Proposition – ‘Impactful innovations that make a mark’ – to attract and retain the best talent who are needed to win in the marketplace. The Company also focused a lot more on its diversity & inclusion initiatives to ensure equal opportunities for all. Airtel was successful in fostering a culture of learning in the context of increasing demand for new skills and the requirement for talent to continuously learn, unlearn and relearn. The Company was also able to positively impact employee experience by creating personalised journeys at scale with technology.

Employee well-being remained paramount in the minds of the leadership, and resources were redirected towards making the workplace safe and keeping employees healthy. The Company was able to design a work environment to support its employees’ physical, mental and emotional health needs. For further details, please refer Human Capital on page 82 of this Integrated Annual Report.
Internal controls

The Company’s philosophy towards internal controls is based on the principle of healthy growth and proactive approach to risk management. Aligned to this philosophy, the Company has deployed a robust framework of internal controls that facilitates efficient conduct of business operations in compliance with the Company policy; fair presentation of Airtel’s financial results in a manner that is complete, reliable and understandable; ensure adherence to regulatory and statutory compliances and that safeguards investor interest by ensuring the highest level of governance. The Internal Control framework has been set up across the Company and is followed at the circle and country level. This framework is assessed periodically, and performance of circles and countries are measured via objective metrics and defined scorecards.

Accounting hygiene and audit scores are driven centrally through the central financial reporting team and Airtel Centre of Excellence (ACE), both teams being responsible for the accuracy of books of accounts, preparation of financial statements and reporting the same as per the Company’s accounting policies. Regulatory and legal requirements, accounting standards, and other pronouncements are evaluated regularly to assess applicability and impact on financial reporting. The relevant financial reporting requirements, documented in the Group Accounting Manuals, are communicated to relevant units and enforced throughout the Group. This, together with the financial reporting calendar evidencing the tasks and timelines, forms the basis of the financial reporting process.

Deloitte Haskins & Sells LLP, the Statutory Auditors, have done an independent evaluation of key internal controls over financial reporting (ICOFR) and expressed an unqualified opinion stating that the Company has, in all material respects, adequate ICOFR and such ICOFR were operating effectively as on March 31, 2022.

The Company has in place an Internal Assurance (IA) function headed by the Chief Internal Auditor. EY and ANB & Co (ANB) are the Internal Assurance Partners of the Company and conduct financial, compliance and process improvement audits on a periodic basis. The internal assurance plan for the year is derived from a bottoms-up risk assessment and directional inputs from the Audit Committee. The Audit Committee oversees the scope and coverage of the IA plan and evaluates the overall results of these audits during the quarterly Audit Committee meetings. Additionally, separate quarterly Audit Committee meetings if required are also held to review the progress made on previous gaps identified by Internal Assurance. During these meetings, functional Directors are invited from time-to-time to provide updates on improvements on controls and compliance within their respective functions and update on the progress of any transformational projects undertaken. Internal Assurance also assesses the effectiveness of Internal Financial Controls (IFC). It assured that no material weaknesses in the design or operation were observed for the current financial year.

A CEO and CFO Certificate, forming part of the Corporate Governance Report, confirms the existence and effectiveness of internal controls and reiterate their responsibilities to report deficiencies to the Audit Committee and rectify the same. The Company’s Code of Conduct requires adherence to the applicable laws and Company’s policies, and also covers matters such as financial integrity, avoiding conflicts of interest, workplace behaviour, dealings with external parties and responsibilities to the community.

The Airtel Centre of Excellence (ACE), based in Gurugram, Bengaluru and Chennai, is the captive shared service for financial accounting, revenue assurance, SCM and HR processes. Digitisation of ACE is being aimed as a part of the transformation agenda and includes initiatives such as system-based reconciliation, reporting processes with vividly defined segregation of duties. The Company operates on a single instance of Oracle across all operating units, which ensures uniformity and standardisation in ERP configurations, chart of accounts, finance and SCM processes across countries. The Company continuously examines its governance practices to enhance investor trust. Initiatives such as virtual desktop interface for ultimate data security, self-validation checks, desktop reviews and regular physical verification are producing measurable outcomes through substantial improvement in control scores across India and Africa. Oracle Governance Risk & Compliance (GRC) module has been implemented for India and Africa to strengthen existing controls pertaining to access rights for various ERPs, ensuring segregation of duties and preventing possibilities of access conflicts.
Risk and Mitigation Framework

At Bharti Airtel, we have thrived globally by building a culture of innovation and high performance. Exploring potential markets, adapting to new technologies, entering strategic partnerships and launching new product offerings open up new possibilities but bring along with them potential risks and uncertainties.

At Airtel, the Board and leadership team have worked to mitigate possible risks that bring along potential disruption in smooth business operations. This explains our creation of steady risk management that caters to strategic, legal, financial, operational and climatic risks. We have a reliable practice to identify crucial risks across the group and map out germane action plans for mitigation.

At the Board Governance level, the Risk Management Framework is evaluated periodically by the Company’s Risk Management Committee. An annual evaluation is also done by the Board of Directors. These apex reviews include: discussions on the management submissions on strategic risks, identifying crucial risks and approving relevant action plans to mitigate such risks on priority. The responsibility of assisting the Risk Management Committee on independent basis lies with the Chief Risk Officer armed with full status of risk assessments and management. Acquiring frequent updates on certain identified risks, depending upon the nature, quantum and the likely impact on the business is also the responsibility of Risk Management Committee.

At the Management level, the respective CEOs are responsible for managing risks across their respective businesses, viz., India & South Asia, and international operations. They ensure that the environment – both external and internal – is scanned for all possible risks. Internal Audit reports are also considered for the identification of key risks.

At the Operating level, the Executive Committees (EC) of Circles in India and Operating Companies in the international operations are entrusted with responsibilities of managing the risks at the ground level. Every EC has local representation from all functions, including centrally driven functions like Finance, SCM, Legal and Regulatory besides customer facing functions, such as Customer Service, Sales and Distribution and Networks. It is the responsibility of the Circle CEO or Country MD to pull together various functions and partners to manage the risks. They are also responsible for identification of risks, and escalating it to the Centre for agreeing mitigation plans. Operating level risk assessments have been concluded at Function/OpCo risk assessment and mitigation plans agreed and kicked off.

Internal Audit Plans are drawn up to ensure scope and coverage of these critical risks during the course of next year.

### Risk Identification Process

1. Scanning the entire business environment - internal and external, for identifying potential risks.
2. Classifying the various risks in terms of probability, impact and nature.
3. Developing objective measurement methodology for such risks.
4. Fixing accountability of people and positions to implement the mitigating action plans.
5. Agreeing on detailed action plans to manage key risks.
6. Listing and prioritising the key risks to be addressed and managed.
7. Approving resources, including budgets for risk management.
8. Reviewing progress of action plans, taking stock of gross and net exposures and mandating corrective actions.
9. Reporting progress to the Board and Audit Committee/Risk Management Committee.
10. Reporting on specific issues to the Audit Committee/Risk Management Committee.
The key risks that may impact the Company are:

<table>
<thead>
<tr>
<th>Potential risks</th>
<th>Risk definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Regulatory and political uncertainties</td>
<td>Volatility and uncertainty in macro-environment with geo-political tensions in India, Sri Lanka and 14 African countries.</td>
</tr>
<tr>
<td>2. Economic uncertainties</td>
<td>Business operations might be impacted with instability in economies in our countries of operations with factors like inflation, interest rates, capital controls and currency fluctuations.</td>
</tr>
<tr>
<td>3. Poor network infrastructure</td>
<td>Risks in network infrastructure cost due to technical failures, human errors and natural disasters. Dynamic changes in IT landscape require constant upgradation of technologies.</td>
</tr>
<tr>
<td>4. Fiercely competitive battleground</td>
<td>Unprecedented disruption and unfair pricing may lead to competition and erosion of revenue with loss of customers. Further, the evolving customer expectations in terms of quality, variety, features and pricing pose threat to business sustainability.</td>
</tr>
<tr>
<td>5. Data Loss Prevention</td>
<td>Risk of data loss can lead to accidental exposure of confidential information across all endpoint devices.</td>
</tr>
<tr>
<td>6. Operating expenses</td>
<td>Increase in business operating expenses (new sites rollouts, capacity) and/or rate increases (inflation, Fx impacts, wage hikes, energy etc.).</td>
</tr>
<tr>
<td>7. Network experience</td>
<td>Telecom companies are required to invest in innovation to match with changes in industrial landscape to provide high quality customer experience and meet the increased customer demand for a stronger and better network connectivity.</td>
</tr>
<tr>
<td>8. Internal controls and processes</td>
<td>Any gaps in internal controls and/or process compliances not only lead to wastages, frauds and losses, but can also adversely impact the Airtel brand.</td>
</tr>
<tr>
<td>9. Digitisation and Innovations</td>
<td>Rapid technology evolution may impact the business functionality and lead to slowdown in business.</td>
</tr>
<tr>
<td>10. Climate Change</td>
<td>Increasing carbon footprint is a serious concern which raises questions on business credibility and sustenance in the long-term.</td>
</tr>
</tbody>
</table>

Risk and Mitigation Framework

Bharti Airtel (the Company), has thrived globally by building a culture of innovation and high performance. The Company explores new markets and business models across the world; evolves new ways of customer and stakeholder engagement; enters into new strategic partnerships; adopts new technologies; and builds exponential efficiencies in existing systems. While these initiatives unveil a universe of possibilities, potential risks and uncertainties arise in a volatile business environment. The distress signals need to be picked up and addressed with urgency for smooth operations. Therefore, the Company has created a robust risk management framework in its operating landscape that caters to strategic, legal, financial, operational and climatic risks. The Company has a sound practice to identify key risks across the Group and prioritise relevant action plans for mitigation. The key risks that may impact the Company and mitigating actions undertaken by the Company comprise:

1. **Regulatory and Political Uncertainties (Legal and Compliance)**

   **Definition:**
   The Company operates in India, Sri Lanka and 14 African countries. Some of these countries (or regions within countries) are affected by political instability, civil unrest, pandemic and other social tensions. Due to the COVID-19 pandemic outbreak, some of these countries had implemented measures like lockdown, social distancing norms and imposed other restrictions thereby, among others, restricting movement of people and mandating closure of offices, shops and commercial establishments. Some of these countries have also been impacted due rising global oil prices as an offshoot of ongoing war between Russia and Ukraine. Besides, the political systems in a few countries are also fragile, resulting in regime uncertainties; hence, the risk of arbitrary action. Such conditions tend to affect the overall business scenario. In addition, regulatory uncertainties and changes, like escalating spectrum prices, subscriber verification norms and penalties, EMF norms among others are potential risks being faced by the business.

   **Mitigating actions:**
   - As a responsible corporate citizen, the Company engages proactively with key stakeholders in the countries in which it operates; and continuously assess the impact of the changing political and social scenario. The Company contributes to the socio-economic growth of the countries in its area of operation through high-quality services to its customers, improved connectivity, providing direct and indirect employment, and contributing to the exchequer. These activities are covered in detail through its annual sustainability report. It also maintains cordial relationships with governments and other stakeholders. The Country MDs and Circle CEOs carry direct accountability for maintaining neutral Government relations. Through its CSR initiatives (Bharti Foundation etc.), it contributes to the social and economic development of community, especially in the field of education.
Risk Management

The Company actively works with industry bodies like Cellular Operators Association of India (COAI), Confederation of Indian Industry (CII), Associated Chambers of Commerce of India (ASSOCHAM), GSMA, Internet Service Providers Association of India (ISPAI) and Federation of Indian Chambers of Commerce & Industry (FICCI) on espousing industry issues e.g. penalties, right of way, tower sealing amongst others.

Regulatory team along with legal and networks keeps a close watch on compliances with regulations and laws and ensures the operations of the Company are within the prescribed framework, and have also implemented business continuity plan wherever required.

2. Economic Uncertainties (Operational) Outlook from last year > Emerging

Definition:
The Company’s strategy is to focus on growth opportunities in the emerging and developing markets. These markets are characterised by low to medium mobile penetration, low internet penetration and relatively lower per capita incomes, thus offering more growth potential. However, these markets fall under countries which are more prone to economic uncertainties, such as capital controls, inflation, interest rates and currency fluctuations. Since the Company has borrowed in foreign currencies, and many loans are carrying floating interest terms, it is exposed to market risks, which might impact its earnings and cash flow. These countries are also affected by economic downturns, primarily due to commodity price fluctuations, reduced financial aid, capital inflows and remittances. Slowing down of economic growth tends to affect consumer spending and might cause a slowdown in telecom sector.

Mitigating actions:
› As a global player with presence across 16 countries, the Company has diversified its risks and opportunities across markets. Its wide service portfolio including voice, data, Airtel Money, Digital Services and value added services helps widen its customer base.

› To mitigate currency risks, it follows a prudent risk management policy, including hedging mechanisms to protect the cash flows. A prudent cash management policy ensures that surplus cash is up-streamed regularly to minimise the risks of blockages at times of capital controls. It has specifically renegotiated many foreign currency denominated operating expenditure and capex contracts in Africa and converted them to local currency, thereby reducing foreign currency exposure.

› To mitigate interest rate risks, the Company is further spreading its debt profile across local and overseas sources of funds and to create natural hedges. It also enters in interest rate swaps to reduce the interest rate fluctuation risk.

› Finally, the Company adopts a pricing strategy that is based on principles of mark to market, profitability and affordability, which ensures that the margins are protected at times of inflation, and market shares at times of market contraction.

3. Poor quality of networks and information technology including redundancies and disaster recoveries (Operational) Outlook from last year > Stable

Definition:
The Company’s operations and assets are spread across wide geographies. The telecom networks are subject to risks of technical failures, partner failures, human errors, or willful acts or natural disasters. Equipment delays and failures, spare shortages, energy or fuel shortages, software errors, fiber cuts, lack of redundancy paths, weak disaster recovery fallback, and partner staff absenteeism, among others are few examples of how network failures happen. This risk may have negative financial implications.

The Company’s IT systems are critical to run the customer-facing and market-facing operations, besides running internal systems. In many geographies or states, the quality of last mile IT connectivity is sometimes erratic or unreliable, which affects the delivery of services e.g. recharges, customer query, distributor servicing, customer activation, billing, etc. In several developing countries, the quality of IT staff is not adequate, leading to instances of failures of IT systems and/or delays in recoveries. The systems landscape is ever changing due to newer versions, upgrades and ‘patches’ for innovations, price changes, among others. Hence the dependence on IT staff for turnaround of such projects is huge.

Mitigating actions:
› The Company has state-of-the-art Network Operations Centre for both India as well as Africa to monitor real time network activity and to take proactive and immediate action to ensure maximum uptime of network.

› Network Planning is increasingly being done in-house, to ensure that intellectual control on architecture is retained within the Company. It continuously seeks to address issues (congestion, indoor coverage, call drops, modernisation and upgrade of data speeds, among others) to ensure better quality of network. Recent efforts also include transformation of the microwave transmission, fiber networks, secondary rings/links and submarine cable
Risk Management

The Company’s philosophy is to share infrastructure with network partners for their increased number of customers using the same driving factor of acquiring 4G share has driven competition for 4G share is seen through a high push on those becoming a key factor for them. Further, with an increased number of customers using the online mode – our app as well as 3rd party apps – the importance of giving a push through these channels may go up.

- Tighter SLAs are reinforced upon network partners for their delivery. The Company’s Network Team performance is measured, based on network stability, customer experience and competitor benchmarking. The Company follows a conservative insurance cover policy that provides a value cover, equal to the replacement values of assets against risks, such as fire, floods and other natural disasters. Disaster management guidelines have been shared with all stakeholders to ensure all actions are in place covering identification of risk, preparedness for the disaster, resource allocation, emergency response & reporting and disaster recovery. Network recovery plan (NRP) is being followed by all circles as per the BCP guidelines.

- The Company’s philosophy is to share infrastructure with other operators, and enter into SLA-based outsourcing arrangements. We have been proactively seeking sharing relationships on towers, fibre, VSAT, data centres and other infrastructure. The disposal of towers in Africa to independent and well-established tower companies and long-term lease arrangements with them will ensure high quality of assets and maintenance on the passive infrastructure. The Company has put in place redundancy plans for power outages, fibre cuts, VSAT breakdowns, and so on, through appropriate backups such as generators, secondary links, among others. Similar approaches are deployed for IT hardware and software capacities; and internal IT architecture teams continuously reassess the effectiveness of IT systems.

- Operational process such as alarm management, preventive maintenance and acceptance testing are being constantly automated with a vision to move towards zero-touch operations. We work with our partners to enhance network availability and reduce failures. Spare management and repair processes are streamlined to ensure no spare shortages.

- Continuous removal of single point of failure (SPOF) on fibre routes and equipment level is being done. To improve transport resiliency, BSC, Core nodes Interconnectivity & signaling links are being shifted on MPLS network.

- In-house developed Workforce management tool now supports field and NOC teams across LOBs to enhance productivity and seamless flow of information to solve customer impacting issues pro-actively and reactively both.

- Airtel continues to work towards climate proofing the infrastructure by building geographical redundancies and resilience, multiple fiber paths for critical sites, strengthening tower infrastructure in cyclone and flood prone regions.

4. **Fiercely competitive battleground (Operational)**

**Definition:**
- Prepaid market continues to be highly competitive & price sensitive. With consolidation in the industry, the simplicity has kicked in offering lesser number of plans and industry is moving towards offering tech-enabled solutions to the trade and customers.

- Competition for 4G share is seen through a high push for device upgrades by operators, in order to retain maximum customers on their 4G networks. This has given rise to subsidies for new 4G device purchase on top-selling smartphone brands, which would sustain or get more aggressive.

- The same driving factor of acquiring 4G share has driven competitors to pour in huge amounts of money for MNP acquisitions programs. The push is expected to get even stronger with increasing adoption of 4G phones by the customers and a good & affordable network experience on those becoming a key factor for them.

- Further, with an increased number of customers using the online mode – our app as well as 3rd party apps – the importance of giving a push through these channels may go up.

- In mobility business, the Company faces a risk of deeply discounted Volte feature phone pricing from competition. Content is becoming a major deciding factor for a customer to choose the operator.

- Muted handset upgrade from 2G to 4G due to economic slowdown and delay in customer purchase in anticipation of 5G launch is causing lower upgrades as customers are delaying the purchase of new handset. Chipset shortage is also leading to lower 4G handset availability.

**Mitigating actions:**
- Our ongoing drive towards simplification of customer journey, the Company had envisioned the task to streamline the product portfolio. A lot of redundancies which got created in the product portfolio were simplified by eliminating unused products. The revised product ladder, further simplified the bundle, smart pack and data top up portfolio by moving from 32 price points to 27.

- Airtel has always been a staunch proponent of sustainable and healthy business growth, while at the same time ensuring its customers get best in class products and services. In order to continue to provide the best in class
services to our customers, Company has taken a bold and necessary move to increase prices of our product portfolio by ~20%. This has led to a substantial and sustainable revenue upside in the year. The recent launch of Data sachet at ₹19 specifically aimed at high data users has helped increase the Data pack penetration among the bundle users. This has also helped drive more customer engagement and improved continuity of the pack takers.

› Further, with an increased number of customers using the online mode – our app as well as 3rd party apps continue to gain importance and we must stay competitive and ahead of the curve in this space. Technology shall play the role of a huge enabler.

5. Data Loss Prevention (Operational)  
Outlook from last year > Stable

Definition:  
Personal data is any information relating to a customer, whether it relates to their private, professional, or public life. In the online environment, where vast amounts of personal data are shared and transferred around the globe instantaneously, it is increasingly difficult for people to maintain control of their personal information. This is where data protection comes in.  

Data protection refers to the practices, safeguards, and binding rules put in place to protect your personal information and ensure that you remain in control of it. In short, you should be able to decide whether or not you want to share some information, who has access to it, for how long, for what reason, and be able to modify some of this information, and more. Data protection must strike a balance between individual privacy rights, while still allowing data to be used for business purposes, whilst adhering to data privacy norms and regulations.

Efforts to update regulations regarding privacy and personal data protection are underway in several countries and regions, most notably the European Union, which has introduced the General Data Protection Regulation (GDPR) package. Within India a data privacy bill has been proposed which regulates how customer data can be used and how it should be protected; Airtel has already initiated multiple activities towards achieving compliance to this bill; this is to ensure that as and when the bill becomes a law, airtel has full compliance.

Mitigating actions:  
The customer base of Bharti Airtel limited has been expanding at a tremendous rate. We also collect and process a large amount of personal information belonging to employees, temporary staff and third party personnel. These facts, coupled with introduction of new innovative value added services, have led to increase in the personal information handled by Airtel. We are committed to ensure that privacy of personal information is maintained during its entire lifecycle, through the implementation of stringent processes and relevant technologies.

› In order to mitigate the recent launch of a low-price Volte smartphone by one of the competitors, Company has introduced subsidised devices with leading with leading OEMs (Samsung, Xiaomi, Vivo) to stay competitive in this segment. Along with this another pilot has been launched with Lava devices which are network locked ensuring sustained revenue by increasing continuity and APRU over a period of time. The lock technology being used has been co-developed along with Google.

› The recent launch of Mera Pehla Smartphone (MPS) program is aimed at first time buyers and customers wanting to upgrade to Smart Phones. This program offers cashback of ₹6,000 over a period of 36 months on specific devices.

“Bharti Airtel Information Privacy Policy (BIPP)” is in alignment with the Information Technology (IT) Rules 2011 and best practices of industry and GDPR. Airtel's privacy policy provides management direction and support to ensure privacy of personal information collected by Airtel, in order to allow collection, processing, retention, dissemination and destruction of the personal information in accordance with the appropriate laws, regulations and contractual obligations.

Bharti Airtel Information Privacy Policy (BIPP) is applicable to all employees of Airtel and all third parties (including strategic partners) of Airtel who have access to personal information of customers, employees and vendors. The BIPP is applicable across all business functions of Airtel and across all geographies of Airtel in India including Airtel center, all circles and other Airtel locations.

Data leakage protection (DLP) is a strategy for making sure that those in possession of sensitive information do not advertently or inadvertently share that information outside the virtual boundaries of the corporate network. The term is also used to describe software products that help organisations control what data end users can transfer. The data leakage prevention strategy at Airtel has been designed to protect information at their most vulnerable points i.e. at the endpoint, at the web layer, and at the email layer.

All Airtel endpoints are equipped with specialised software. This software helps monitor various channels for potential data leakage. Should a potential violation be detected, an alert is generated and the potential incident investigated. Similar solutions are deployed on the email gateway and web gateway, to monitor emails and internet bound traffic respectively. A centralised monitoring team reviews the alerts and raises an incident for investigation and resulting action. All incidents are tracked to closure in a time bound manner. Additionally, a monthly review of all incidents and their closure is conducted, to enable the organisation to regularly refine the existing policies. Airtel continuously evaluates the data protection landscape for new and innovate technologies to further enhance its data security posture. This risk may impose negative financial implications for Airtel.
6. Increase in cost structures ahead of revenues thereby impacting liquidity (Operational/Strategic) Outlook from last year > Stable

Definition:
Across markets, costs structures have been increasing both from volumes (new sites rollouts, capacity) and/or rate increases (inflation, foreign exchange impacts, wage hikes, energy etc.). This is putting pressure on margins and cash flows thereby leading to debt burden (leverage). Increased investment in network to ensure quality of service, continued spends on distribution and maintaining world class customer service are expected to remain.

Mitigating actions:
› The Company has institutionalised the War on Waste (WOW) Programme, an enterprise-wide cost-reduction programme. This has been rolled out across all functions, business units and countries. All functions/business units/countries are targeting cost reductions and cost efficiencies. The Company continues to focus on capex optimisation through various programmes like tower-sharing, fibre sharing through IRU or co-build.
› Digitisation and automation with significant programmes on self-care, paper less acquisition, e-bill penetration, online recharges, indoor to outdoor conversion and digital customer interactions are continuously monitored through our WoW initiatives.
› The Company has been progressively maintaining to keep the debt levels at acceptable levels. To this end it has and continues to take decisions on inorganic sources of funding including rights issue of shares, divestment of Infratel and DTH stakes.

7. Inability to provide high quality network experience with exponential growth in data demand (Strategic) Outlook from last year > Stable

Definition:
In order to keep pace with rising data demand of customers and to ensure competitive parity traffic, telecom companies will be required to invest heavily in building data capacities and broadband coverage expansion. Operators are adopting new strategies to provide unlimited voice and significant data benefits to customers. Additionally, today’s customer is looking at seamless mobile internet experience and technology agnostic.

Mitigating actions:
Airtel now has sub-Ghz spectrum pan-India to enable deeper indoor penetration and cover a larger population footprint than ever before. Spectrum addition in 1800, 2100 and 2300 bands will help mitigate the capacity needs due to ever increasing data consumption, resulting in much better improved experience. For this exercise we added Sub-Ghz at ~109K sites pan-India.
› Airtel added additional 24K new 4G Sites to expand its footprint and strengthened coverage in rural and urban areas. This is a step for providing better experience to our customers.
› Airtel added 55 PB capacity in the network for fulfilling the customer needs due to increased data consumption in COVID-19 period. Various tools like addition of TDD, L2100, Twin Beams, m-MIMO, Spectrum addition were used for enhancing the capacity.
› Spectrum Efficiency improvement program helped in sweating the spectrum and providing more capacities. This included L900 maximisation, bringing in new features and functionalities, running 2G on lean carrier and reusing spectrum for 4G along with various optimisation activities.
› Airtel is continuing to step up backhaul readiness and capacities on sites with increased fibreisation and capacity expansion of transmission backbone and internet to cater to additional data load as projected in AOP by respective Business Units. This has established our readiness for having the optimum backhaul for 5G.
› Pan India footprint and roaming across circles on VoLTE has been established because of which ~60% of the voice traffic has been offloaded from legacy core to 4G (HD). Voice is being carried over VoLTE Spectrum addition in 1800, 2100 and 2300 bands. It will help mitigate the capacity needs due to ever increasing data consumption, resulting in much better improved experience.
› Airtel has been investing in digitisation of its operations using automation and machine learning practices. This would help us in improved customer experience through faster resolution of the complaints and queries along with bringing in efficiency in the network. Airtel has developed a state-of-art in-house tool ‘Airtel Self Optimisation Network (A-SON) to predict degradation and proactively makes changes in the network to enhance customer experience greatly. A-SON won the ‘Innovative Mobile Service and Application Award’ by GTI Awards 2022, among the nominations from global players such as ZTE, Saudi Telecom Corporation etc.
› Airtel has been accelerating the broadband rollout (Fiber to Home) in multiple cities across India through LCO model bolstered with our own rollouts. This model has led to 400% jump in our installations which has now reached a figure of 15 Mn HPs (home passes). The increased demand of ‘Work from Home’ post pandemic, increased consumption of 4K content and increased concurrency on home-Wifi has been efficiently managed by fiber to home broadband.
› Airtel is 5G ready under all aspects and has demonstrated its capabilities in 5G demo in field in 2021 and recent 5G trials based on trial spectrum allocated by DOT. Airtel showcased >1Gbps throughput across urban and rural use cases. We also demonstrated mmWave capability with throughput >4Gbps observed under trial conditions.”.
8. Gaps in internal controls (financial and non-financial) (Operational)
Outlook from last year > Stable

Definition:
The Company serves its customer with extensive load due to voice network and huge data carried on wireless networks. Gaps in internal controls and/or process compliances not only lead to wastages, frauds and losses, but can also adversely impact the Airtel brand.

Mitigating actions:
› The Company’s business philosophy is to ensure compliance with all accounting, legal and regulatory requirements proactively. Compliance is monitored meticulously at all stages of operation. Substantial investments in IT systems and automated workflow processes help minimise human errors.
› Besides internal audits, the Company also has a process of self-validation of several checklists and compliances as well as a ‘maker-checker’ division of duties to identify and rectify deviations early enough. The Company has implemented a “Compliance Tool” which tracks and provides a comprehensive list of all the external compliances that the Company needs to abide, function-wise. The Compliance Tool’s ownership lies with the head of the respective function with an oversight by the Legal team to ensure compliance.

9. Lack of Digitisation and Innovations (Strategic)
Outlook from last year > Emerging

Definition:
Digitisation is reshaping the telecom sector and will be a key driver for innovation within the Company as companies compete in a digital ecosystem away from pure connectivity based environment. Further evolving technologies result in change in customer value propositions. Digital content and apps have now become the favorites for mobile customers. Digital Mobile money technologies, innovative mobile apps, Cloud, M2M, SaaS and other technology-based SAS products are also evolving. Such rapid technology evolution may impact the functionality of existing assets and accelerate obsolescence. Keeping pace with changing customer expectations is a big agenda for the telecom sector. Lack of Digitisation of internal business processes may render the Company unable in turn to respond to customer needs. Rapidly evolving technologies like robotics, block chain, app automation for internal processes in Customer, Finance, Supply Chain and HR can render the Company slow in decision making and reacting to new and emerging customer, vendor, and partner expectations.

Mitigating actions:
Digitisation for our customers continues to be the prime area of focus, with several digital initiatives being undertaken. Please find below the summary:
› Digital strategy of Airtel Business has three pillars:
  − Transform the core business by digitisation
  − Create more value for customers by bundling of core as well as 3rd party products (ARPA increase)
  − Innovate with new products such as Airtel IQ, IOT
› We are creating super personalised one-stop-shop for customers to discover, buy and manage products (‘Thanks for Business’).
› To make customer lifecycle completely digital, Airtel Business is developing self-service and omni channel capabilities across the value chain. Our focus is to simplify customer experience powered by digital first journeys based on customer segment.
› Digital Transformation of experience for Small and Medium Enterprises: Airtel is creating digital journeys to provide superior experience at scale with lower cost to small and medium enterprises. We launched initiatives to digitise every touchpoint for SMB customers.
› We are driving simplification of the order to cash cycle to boost conversions and improve service levels
  − Digital discovery and buy experience
  − Digital payments
  − Nex-gen OSS/OSS stack for faster delivery
  − Automation of field force for delivery and assurance.
› We are also redesigning and automating processes to be end to end digital and raise service standards and save cost.
› Digital transformation is powering our initiative to be an ‘Open Telco’. We are striving to give visibility to our customers by automating customer reports, providing proactive communication for outages and putting status of orders and service requests online.
› Investment in unified data platform is a key pillar to provide personalised experience on ‘Thanks for Business’. This initiative empowers us to gain deep customer insights to make strategic decisions.
10. Climate Change (Strategic)  Outlook from last year > Emerging

**Definition:**
Over the last decade, climate change has emerged as a credible risk to almost every business sector, including the telecommunication sector. Telecom industry’s carbon footprint is likely to increase as developing markets continue to grow, network traffic increases, and companies move towards 5G. In order to address this, GSMA (Global System for Mobile Communications) has recently constituted a taskforce to develop Climate Action Plan for the telecom industry, in support of the Paris Climate Agreement. This is driven by the objective to develop methodologies that will enable the industry members to set science based targets and achieve net zero carbon emissions by 2050 or sooner. This will facilitate the industry to take a leadership position in transcending towards a carbon positive economy.

Bharti Airtel Limited is a member of the taskforce created by GSMA, supporting the endeavor to move towards cleaner operations and more energy efficient networks. Consequently, there is an urgent need for us to identify potential risks posed by climate change and their impacts on the company, to be able to develop our own mitigation strategy. At Airtel, Climate change risks are considered an integral part of our centralised enterprise risk management.

We foresee climate change manifesting in the form of the following risks to our business in the coming years:

- **Policy and Legal Risk:** Following the Green Telecom guidelines issued by the Department of Telecom (DoT), Government of India, calling for an increase in the use of green energy technologies in telecommunication sector, climate change is emerging as a potential factor that can interfere with the realisation of our strategic, operational, financial and compliance objectives.

- **Technology Risk:** The need to transition to lower emission technologies, necessitated by regulatory or market environment, might lead to early retirement of existing assets. For instance, Green Telecom guidelines issued by DoT require all telecom products, equipment and services to be energy and performance assessed and certified ‘Green Passport’, utilising the ECR ratings.

- **Physical Risk:** Because of increased frequency and severity of extreme weather events, there is a greater risk of damage to our network infrastructure and physical assets exposed to such weather.

- **Market Risk:** Adverse impacts of climate change might impact the livelihoods of some customers (for example, those in rural areas) thereby reducing their capacity to afford our services.

- **Reputational Risks:** Rising expectations of customers and other stakeholders from a business organisation to contribute to a low-carbon economy, expose us to a certain degree of reputational risk.

**Impact:**
The above climate related risks may have negative financial implications. It may translate to following impacts for Airtel:

- Higher operational expenses due to increased regulatory and compliance requirements, such as increased cost of GHG emissions and emission reporting obligations, as well as higher insurance premiums for assets exposed to climate risks.

- Increased capital investment in new technologies and green energy solutions.

- Impact on revenue from decreased operational capacity due to network failure or other interruptions.

- Increased frequency and intensity of extreme weather events interrupting our materials supply by disrupting modes of transport.

- Increased temperatures adversely impacting the health and safety of workers at our facilities, with the potential to disrupt operations and decrease revenue.

**Mitigating actions:**
We realise the considerable negative impact that climate change can have on our business and have identified ‘Energy, Climate Change & Resource Optimisation’ as one of our high priority material issues. Following are some of the measures that we have taken to mitigate this emerging risk and build climate resilience:

- Adopting green energy solutions through installation of rooftop solar panels at Main Switching Centres (MSCs) and using advance VRLA batteries to reduce the running of Diesel Generator sets in our operating sites.

- Reducing our energy consumption through measures such as Solar-DG hybrid systems, energy efficient lighting and equipment at our facilities and power purchase agreements, among other things.

- Working closely with network infrastructure and facility management to facilitate a shift to green mobile tower technologies that consume less power.

- Other initiatives aimed at creating green data centers, equipment optimisation, outdoor BTS sites, minimising e-waste and paper waste.

- Airtel is ISO 22301 (Business Continuity Management system) certified to reduce the likelihood of occurrence, prepare for, respond to, and recover from disruptive incidents when they arise.