**The US-China Tech Conflict and Pakistan**

[Muzammil Ferozi](https://dailytimes.com.pk/writer/muzammil-ferozi/)

July 15, 2021

Impeding access to semiconductors, 5G technologies, and more could hamper the wider socio-economic development of a Digital Pakistan. Today, access to advanced technologies has become a chief indicator of national competitiveness and prosperity. Perhaps more than any other field, investments in digital infrastructure are enabling Pakistan and the wider region to improve health care, expand education, and build new knowledge-based industries.

Unfortunately, these technologies have also become a point of contention in recent years. This is nowhere more evident than in the current geopolitical saga around semiconductor chips. Although largely unseen in everyday life, chipsets are the lifeline of modern utility grids, transport networks. They are critical to future 5G networks and set to connect all industries like never before. These all feed into the wider Digital Pakistan vision for a thriving local tech ecosystem.

Semiconductor companies have recently been pleading for patience as the industry works through a rapid increase in demand from nearly every industry vertical. The pandemic has only exacerbated the situation, with manufacturing temporarily suspended in some instances, while people are relying on computers and work-from-home technology more than ever before.

Despite the US ban, Huawei seems to have come out more determined than ever to lead innovation from within

One of the key drivers behind this recent chipset fallout is the limitations put on the free trade of chips, particularly the US policies towards Chinese companies under the pretext of “national security.” Chinese companies, such as Huawei, have now been blacklisted by the US government. This prevents them from buying the chips they need for smartphones and communications equipment from American suppliers. SEMI, the industry association serving the global electronics design and manufacturing supply chain, noted how US export control regulations would ultimately undermine the US national security interests by harming the semiconductor industry. This would further create substantial uncertainty in the semiconductor supply chain. For example, out of the estimated USD 70 billion that Huawei spent buying components before the US ban in 2018, some USD 11 billion went to US firms, including Qualcomm, Intel and Micron. This results in significant losses due to the ban. Boston Consulting Group has further projected that American companies could see a 37 per cent drop in revenue over the next three to five years if Washington banned US chip makers from selling to Chinese customers.

These restrictive US policies are not just impacting brands like Huawei in areas such as mobile phones and 5G technology. They are also now emerging in other areas like artificial intelligence (AI), cloud computing, and related components essential to the digital economy. That is, in turn, hurting sectors such as the automotive industry, which started shutting some assembly lines in early 2021 due to a global shortage of chipsets.

Meanwhile, the hub of chipset production—and ICT innovation in general—has steadily moved from the West to the East in recent years. In 2020, for example, China officially surpassed the US in its number of patent applications. China’s spending on R&D has climbed by 10% this year to USD 378 billion. The single biggest patent filer globally remains Huawei, which it has been for four consecutive years. Despite the US ban, Huawei seems to have come out more determined than ever to lead innovation from within; maintaining its patent lead in areas like 5G and venturing into new areas like smart vehicles.

There is plenty of headroom to grow, too. Despite a slowdown in global ICT spending last year due to the pandemic, industry experts estimate that the overall industry will be catapulted back to the growth of more than 2x GDP, as new technologies begin to account for a larger share of the market.

The sheer scale of these investments suggests that tighter trade policies by the West regarding Chinese tech companies are more of a grasp for economic influence, driven by politics, rather than a genuine, scientific concern about cybersecurity. Such trade policies dampen the exchange of knowledge. They fuel the creation of innovation silos rather than collective thinking. They also limit the global supply chains and free trade, which is not in the interest of countries like Pakistan.

With the world struggling to rebound from the impact of the COVID-19, deeper international cooperation in the field of ICT innovation is needed more than ever. This will enable Pakistan and others to leverage emerging technologies faster, more freely, and to the welfare of society overall.

*The writer is a correspondent at Daily Times and tweets at @maferozi.*