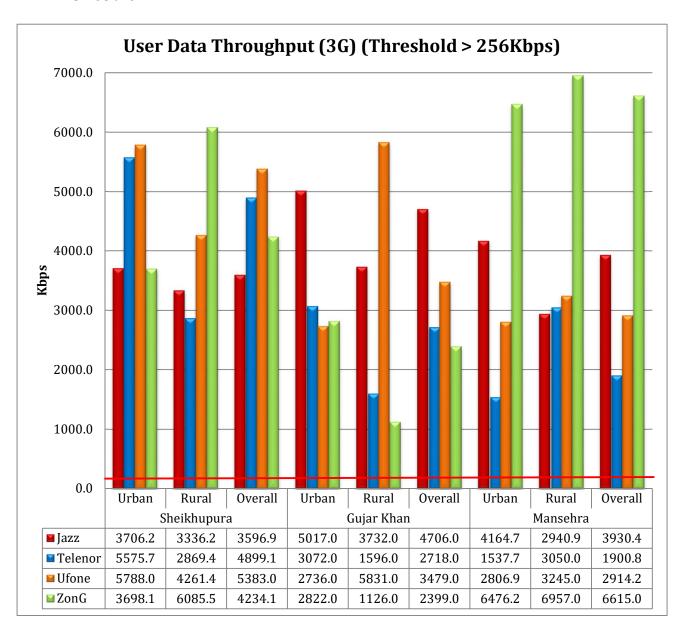
<u>IOINT QUALITY OF SERVICE SURVEY REPORT – 1ST QUARTER 2020</u>

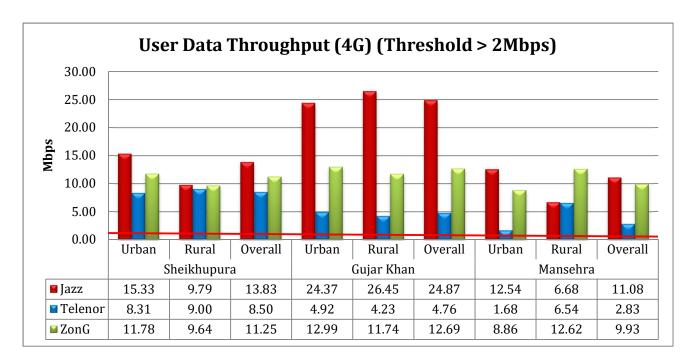
Pakistan Telecommunication Authority (PTA) has carried out joint quarterly Quality of Service (QoS) survey with Cellular Mobile Operators (CMOs) from January to March 2020 in three (3) different cities i.e. Sheikhupura and Gujar Khan of Punjab and Mansehra of Khyber Pakhtunkhwa.

DATA – KEY PERFORMANCE INDICATORS

<u>Data KPIs.</u> The performance of data services of CMOs has been checked by measuring User Data Throughput and Signal Strength (i.e. Received Signal Code Power (RSCP) for 3G and Reference Signal Receive Power (RSRP) for 4G).

<u>User Data Throughput</u> *This KPI defines user data rate (Internet speed) to be provided by CMOs to mobile users across the coverage areas. The data throughput results of all CMOs are:*





 Telenor has not achieved the threshold of 2Mbps User Data Throughput for 4G services in Urban Areas at Mansehra.

SIGNAL STRENGTH. This KPI defines Received Signal Code Power (RSCP) for 3G and Reference Signal Receive Power (RSRP) for 4G and denotes the power measured by a receiver on a particular physical communication channel. It is used as an indication of signal strength, as a handover criterion, in downlink power control, and to calculate path loss". The Signal Strength for CMOs are:

