

Over several years, GSMA Intelligence has investigated the value of mmWave spectrum and mmWave 5G in great depth, including mmWave spectrum [demand](#) to 2030, the value of mmWave in [5G FWA](#) and the [TCO](#) of mmWave 5G. The analysis was largely from a network or operator perspective, lacking a view of consumer demand. Earlier in 2022, we began a series of analyses looking at how consumers view the value of mmWave in support of 5G, based on consumer survey data from Qualcomm, spanning 4,500 consumers in nine countries across three regions.

Our first [analysis](#) addressed pain points that consumers face when using mobile broadband in a scenario where mmWave could improve experiences, and how big those pain points are. Having established some of the day-to-day issues consumers face, here we look at where consumers want mmWave 5G, what they want from it, and how this impacts their loyalty to a given operator.

Analysis

Using the concept of ‘5G enhanced services’ as a proxy for what mmWave 5G can deliver (a necessary construct given the different levels of awareness of the term ‘mmWave’), our initial work highlighted that connectivity issues in crowded areas – including slow uploads and downloads – are top pain points for consumers. So where are those areas and what do people want to do in them?

mmWave 5G: where do people want it?

There are many different types of crowded area, but consumers identified three where they most want to be able to use mobile devices: transit stations (by 56% of consumers), congested areas in city centres (54%) and busy shopping areas (also 54%).

The data reflected that the locations and pursuits consumers focus on for device usage differ by country. For example, US consumers over-indexed on wanting to use their devices in stadia/arenas (52%), fitness centres (44%), amusement parks (40%) and conference venues (38%). Meanwhile, French consumers were most enthusiastic about shopping areas (65%), and South Koreans focused on transit centres (70%) and city centres (59%). As always, operators need to take a cue from what their consumers and network traffic reporting tell them.

mmWave 5G: giving people what they want

While the places where people most want to use their mobile devices may vary across markets, what is relatively consistent is that they want high-quality, broadband connectivity without dropped connections. When asked about crowded areas and how experiences would influence their adoption of 5G enhanced services, 64% of consumers

said the basic provision of reliable, high-speed connectivity was very or extremely likely to influence them (see chart).

The value proposition of being always “connected at high speeds without dropped calls or missed texts” underscores the primacy of reliability in terms of critical experiences, especially where it ranked higher than specific use cases such as gaming, cloud access or video/music streaming. Of course, no two countries were identical; some consumers were more enthusiastic about all experiences (US), while others (China, Japan, South Korea) were generally less enthusiastic than the global mean.

5G and churn: what would drive a consumer to switch providers?

Having identified places where consumers would like to have mmWave 5G, and the experiences that would influence them to adopt it, the next question is how much they would value this type of service. We will answer this directly in our next analysis, examining willingness to pay. In the meantime, we can consider another value measurement: whether consumers would switch providers to obtain 5G enhanced services. Around half of the surveyed consumers worldwide (48%) would be very or extremely likely to switch. That percentage grows to 55% when considering those who would pay extra for the services.

Beyond those who would churn to obtain mmWave 5G, it is particularly illuminating to consider those who would not. On a global basis, only 10% of all consumers would be very or extremely unlikely to switch providers. Compared with the 48% who would, that is nearly a fivefold difference, conveying an overall propensity to churn and an opportunity to influence decisions by messaging the value of 5G enhanced services.

Source: GSMA Intelligence analysis of Qualcomm data

In a crowded area, which experiences would influence your adoption of 5G enhanced services (mmWave 5G)?

Percentage of respondents answering very likely or extremely likely



Implications

Mobile operators

- **Retaining versus gaining customers** – While the details vary between markets, it is estimated that customer acquisition and retention costs as a share of service revenues can significantly outpace capex as a share of service costs for an average mature market operator. Where capex can be directed towards technologies (including mmWave) that deliver on consumer needs and keep them from churning, the magnitude of the value is key. If that capex can pick up new consumers from a competitor, the value is compounded.
- **Asia-Pacific opportunities** – Asia-Pacific consumers (in China, Japan and South Korea) are the least likely to switch operators to obtain 5G enhanced services and are the least likely to be influenced by specific experiences. However, these same respondents reported relatively more pain points around cellular connectivity. For operators in the region, there is an opportunity to help better message the value of new mmWave 5G experiences (and how they are being delivered), whether to help reduce dissatisfaction or capture customers from competitors.
- **A lesson to be learnt from the US** – US consumers stand in stark contrast to their counterparts in Asia Pacific; they are most enthusiastic about all experiences that would benefit from mmWave 5G and are more likely to switch operators to get them. They are also significantly more likely to be aware of the terms 'mmWave' and '5G' than consumers in any other market. This correlation between familiarity and mmWave interest is testament to the power of marketing and a lesson for operators elsewhere when they roll out services to meet consumer demand.

Ecosystem suppliers

- **Networks in support of services** – User experience and new revenue generation represent the top network transformation priorities for mobile operators according to GSMA Intelligence [research](#) – a reminder that network infrastructure and networks strategies are all in support of new services and experiences. As network vendors drive new mmWave innovations into the market, they must connect those innovations to a clear service value proposition, helping would-be customers see the value of mmWave and proving their own insights into consumer demand.
- **Bring mmWave devices to the masses** – Across the consumers surveyed, those with smartphones in the \$400-799 price range were significantly more likely to change operators to obtain mmWave 5G (51% being very or extremely likely), than their counterparts with phones costing \$800 or more (45% very or extremely likely). This points to an interest in mmWave capabilities in more than just high-end devices, and an opportunity for device suppliers to support market demand.
- **Drive the value of reliability into the masses** – In segmenting consumers into user types (tech enthusiasts, gamers, social users and hybrid workers), it is the tech enthusiasts who are most excited about all experiences and more likely to change providers to get mmWave 5G. This isn't surprising, as this group is also most aware of the term 'mmWave'. Yet the value and experiences delivered by mmWave services apply to gamers, social users and hybrid workers too. Smartphone makers need to help them understand this to drive the value of mmWave devices and support their operator partners.

This analysis was supported by Qualcomm, leveraging its mmWave consumer survey data and insights.

Related reading

[Vision 2030: mmWave Spectrum Needs](#)

[The economics of mmWave 5G](#)

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