

*Chunghwa Telecom Recognized as the*

**2021**

**Company of the Year**

Taiwan Mobile Data Services Industry

*Excellence in Best Practices*



中華電信

Chunghwa Telecom

## Best Practices Criteria for World-Class Performance

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each award category before determining the final award recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated company. Chunghwa Telecom excels in many of the criteria in the mobile data services space.

AWARD CRITERIA	
<i>Visionary Innovation &amp; Performance</i>	<i>Customer Impact</i>
Addressing Unmet Needs	Price/Performance Value
Visionary Scenarios Through Mega Trends	Customer Purchase Experience
Implementation of Best Practices	Customer Ownership Experience
Leadership Focus	Customer Service Experience
Financial Performance	Brand Equity

### Industry Background

The mobile data market in Taiwan is highly mature and competitive. Five mobile service providers have both 4G and 5G mobile broadband licenses, serving 23.6 million in 2020. Moreover, the National Communication Commission has issued a total of 16 mobile virtual network operators’ licenses, enabling smaller service providers to provide mobile services. The current mobile penetration rate in Taiwan is at 124.3% as of 2020, indicating market saturation. There is also a decline in revenue from traditional mobile services, such as Voice and SMS, with global travel restrictions due to COVID-19 accelerating the trend. However, the decline in revenue from traditional mobile services is offset by increasing demand for mobile data. Taiwan’s mobile data market is one of the highest data usage countries in Asia-Pacific (APAC), with average data usage of 24.8 gigabytes per capita in 2020. In response to the rising demand for data, service providers in Taiwan are providing promotional programs to attract consumers, including unlimited data plans. However, offering such services can potentially shrink service providers’ average revenue per user.

In such a saturated market, key differentiators for service providers hinge on premium branding, service quality, network reliability, and the attractiveness of service packages. In recent years, service providers have been developing and upgrading their 4G and 5G networks to gain a competitive advantage. To remain relevant in the Taiwanese market, service providers must innovate to overcome

intensifying competition, increasing demand for data, and the need for new revenue streams to ensure future business sustainability.

### **Financial Performance**

*"In 2020, the company served 11.3 million mobile subscribers, representing a market share of 36%. Its market share of mobile service revenue in 2020 was 38.4%, the highest among all mobile services providers. Chunghwa Telecom's market leadership and strong performance is an indication of its network's superiority in Taiwan."*

**- Sofea Zukarnain, Research Associate, ICT**

Overall, Taiwanese mobile service revenue declined by 5.2% in 2020 due to the impact of COVID-19 and increasing competitive intensity. Chunghwa Telecom, on the other hand, recorded a 2.1% year-over-year growth for its mobile data division, with revenue of NT\$21.4 million for the 2020 fiscal year. Frost & Sullivan finds the company's performance was driven by rising data demand and the availability of its high-speed networks. Chunghwa Telecom has maintained its market leadership and is the largest mobile service provider in Taiwan in terms of mobile revenue and subscribers. In 2020, the company served 11.3 million mobile subscribers, representing a market share of 36%. Its market share of

mobile service revenue in 2020 was 38.4%, the highest among all mobile services providers. Such a clear market leadership position indicates Chunghwa Telecom's operational excellence and confirms the strength of its network strategy.

### **Implementation of Best Practices**

The COVID-19 pandemic has increased trends such as remote work and online learning, increasing the use of highly data-intensive applications such as video streaming. As a result, there is rising demand for mobile data and high-speed connectivity. Compared to its competitors, Chunghwa Telecom owns the largest mobile spectrum allocation in Taiwan, resulting in more than 94% nationwide coverage. The company currently owns spectrum slots within the 900 megahertz (MHz), 1,800 MHz, 2,100 MHz, and 2,600 MHz spectrum bands, totaling a 180 MHz bandwidth. Such broad coverage provides enhanced mobile services, ensuring customer satisfaction.

Chunghwa Telecom continues to focus on enhancing its 4G and 5G mobile broadband networks to cater to the need for higher bandwidth. To that end, the company has successfully migrated majority of its customers to its high-speed Fiber-to-the-X (FTTx) service. As of 2020, the percentage of FTTx's network coverage speed occurring at 1 Gigabit per second (Gbps) and higher was approximately 83.1%, resulting in high adoption rates in Taiwan. The availability of both FTTx and mobile data at home enables a mix of traffic options for the high-data intensive applications, boosting connectivity and providing an enhanced customer experience.

### **Visionary Scenario Through Mega Trends**

The proliferation of 5G services is a Mega Trend that is recognized in the industry. 5G has capabilities such as higher speeds and bandwidth, enabling consumers to enjoy enhanced mobile services. In 2020, Chunghwa Telecom obtained a spectrum for 5G mobile broadband services, paying NT\$48.4 billion for 90 MHz spectrum over 3.5 gigahertz (GHz) frequency bands and 600 MHz spectrum over 28

GHz frequency bands. That same year, Chunghwa Telecom launched 5G services to its customers. Chunghwa Telecom currently has Taiwan's largest 5G spectrum holdings and more 4G and 5G base stations than competitors. The company can thus provide the best coverage and service experience in Taiwan.

For example, in collaboration with Nokia, Chunghwa Telecom expanded 5G in high-traffic areas, high-speed rail stations, more than 120 densely populated tourist hotspots, and in demanding business districts, including metropolitan cities. Chunghwa Telecom has also deployed private network solutions in the 3.5 GHz and 28 GHz spectrum to meet enterprises' high-throughput requirements.

In addition to providing high-speed network data services, Chunghwa Telecom utilizes 5G technology to deliver innovative digital services for customers. For example, Chunghwa Telecom partnered with Gamestream, a business-to-business cloud gaming technology company, to launch the Hami 5G Cloud gaming application for Android and iOS users in 2020. The cloud gaming service offers access to more than 65 iconic console titles and delivers high-performance cloud gaming, meeting the demand and requirements of Taiwanese gamers. Moreover, a focus on leveraging network-embedded 5G currencies is enabling Chunghwa Telecom to effectively address the communication, collaboration, and entertainment needs of its customers and partners, spurring its future growth.

### **Customer Service Experience**

The spike in remote work, online learning, and entertainment such as mobile gaming and video streaming has increased network traffic usage, significantly impacting network speeds and constraining service providers' networks. To address the significantly elevated data communication needs of customers, Chunghwa Telecom has expanded its Wi-Fi network to offload mobile network capacity in residential areas and public areas with high subscriber density and network usage (e.g., urban and crowded areas). As of 2020, Chunghwa Telecom had a total of 2.6 million residential and business customers leasing its access points. The company also had more than 48,000 Wi-Fi hot spots in public areas (convenience stores, airports, and convention centers) by the end of 2020. As a result, mobile subscribers could access Chunghwa Telecom's Wi-Fi network, helping it offload mobile data network traffic and ensure a seamless and consistent broadband connection for customers.

### **Customer Purchase Experience**

*"Along with having the largest market share in the Taiwanese mobile data industry, the fact that Chunghwa Telecom was still able to increase its mobile data subscriber base by 5.6% in 2020 speaks volumes about the positive purchase experience it provides to customers."*

**- Sofea Zukarnain, Research Associate, ICT**

The COVID-19 pandemic imposed travel restrictions in Taiwan, shifting consumer purchase behavior from traditional brick-and-mortar to online platforms. Despite the challenges, Chunghwa Telecom continues to develop its extensive sales and distribution channels to enhance the user experience on different channels. For example, the company integrated its online and offline sales channels with Big Data capabilities, providing customers with a personalized online purchase process. As of 2020, Chunghwa Telecom had 455 service centers and 15 call centers to support sales and customer service. Unlike

competitors, the company is broadening its distribution channels by strengthening cross-industry alliances. By collaborating with external sales agent systems such as SENAO, Chunghwa Telecom can better reach its customers and improve operational efficiency.

The partnership with SENAO has also enabled the company to add 245 SENAO-exclusive service stores, allowing customers to subscribe to its mobile services at SENAO retail stores. Along with having the largest market share in the Taiwanese mobile data industry, the fact that Chunghwa Telecom was still able to increase its mobile data subscriber base by 5.6% in 2020 speaks volumes about the positive purchase experience it provides to customers.

### **Brand Equity**

4G connectivity is ubiquitous in Taiwan. More than 90% of mobile subscribers are covered by 4G networks, making network speed, the data experience, and the customer experience key points of differentiation. Aligned with its market leadership position, Chunghwa Telecom recorded the best download speed, video, and voice application experience among the country's major mobile data service providers in 2020. According to Opensignal's State of Mobile Networks in Taiwan (December 2020) report<sup>1</sup>, Chunghwa Telecom recorded a download speed of 41.2 megabits per second, a video experience score of 75.9, and a 4G coverage experience score of 9.8, edging out competitors' performance. By consistently providing customers with an excellent and seamless network experience, Chunghwa Telecom is expected to drive the use of mobile data, resulting in still greater brand equity and strengthening the company's position as the best mobile data service provider in Taiwan.

### **Conclusion**

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The Taiwanese mobile data market is under pressure due to the rise of competition, increased demand for data, and the impact of COVID-19 on network traffic. Chunghwa Telecom's strategic initiatives have helped the company successfully address market challenges and maintain a market leadership position. Chunghwa Telecom currently has the highest mobile revenue and subscriber base in the country, and its network covers approximately 94% of Taiwan. Its commitment to ongoing network improvements and enhancements not only improves the customer experience but provides the company with new growth opportunities.

With its impressive overall performance, Chunghwa Telecom earns Frost & Sullivan's 2021 Company of the Year Award in the Taiwan mobile data services industry.

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<sup>1</sup><https://www.opensignal.com/reports/2020/12/taiwan/mobile-network-experience>

## What You Need to Know about the Company of the Year Recognition

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Frost & Sullivan's Company of the Year Award is its top honor and recognizes the market participant that exemplifies visionary innovation, market-leading performance, and unmatched customer care.

### Best Practices Award Analysis

For the Company of the Year Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

#### *Visionary Innovation & Performance*

**Addressing Unmet Needs:** Customers' unmet or under-served needs are unearthed and addressed by a robust solution development process

**Visionary Scenarios Through Mega Trends:**

Long-range, macro-level scenarios are incorporated into the innovation strategy through the use of Mega Trends, thereby enabling first to market solutions and new growth opportunities

**Leadership Focus:** Company focuses on building a leadership position in core markets and on creating stiff barriers to entry for new competitors

**Best Practices Implementation:** Best-in-class implementation is characterized by processes, tools, or activities that generate a consistent and repeatable level of success

**Financial Performance:** Strong overall business performance is achieved in terms of revenue, revenue growth, operating margin, and other key financial metrics

#### *Customer Impact*

**Price/Performance Value:** Products or services provide the best value for the price compared to similar market offerings

**Customer Purchase Experience:** Quality of the purchase experience assures customers that they are buying the optimal solution for addressing their unique needs and constraints

**Customer Ownership Experience:** Customers proudly own the company's product or service and have a positive experience throughout the life of the product or service

**Customer Service Experience:** Customer service is accessible, fast, stress-free, and high quality

**Brand Equity:** Customers perceive the brand positively and exhibit high brand loyalty

