

Made in Japan: Towards an Innovative Nation with Google

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The amounts in this report are estimated in both Japanese yen and US dollars. The conversion is based on the average exchange rate in 2015, sourced from X-Rates.com, which was 1 USD = 121.003 JPY.

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Executive Summary

The digital economy will play a major part in rejuvenating productivity and economic growth in Japan. Quantifying the impact of the digital economy can be difficult given that many digital products and services are provided free of charge. Therefore, to fully understand what the digital economy's impact looks like, we need to go beyond traditional economic measures, and look at broader metrics and indicators. The objective of this report is to inform the debate on how to measure digital economic activity, by providing a robust estimate of the economic impact of Google's activities on Japan's digital economy.

Given that the majority of Google's products are provided free of charge, the economic impact of Google will be underestimated if we rely solely upon traditional economic measures that register only transactional values. To illustrate the challenge, none of the benefits consumers derive from finding answers with Google Search, communicating through Gmail or finding places through Google Maps are reflected in economic output measures such as Gross Domestic Product (GDP). Similarly, the economic contributions to businesses could also be underestimated because several products are provided free of charge (e.g. "Google My Business") or traditional economic measures fail to account for the return that businesses receive from using paid Google advertising services, such as AdWords.

This report aims to address these shortcomings of traditional economic measures and describe the total positive economic impact of Google in Japan as comprised of three components: consumer benefits, business benefits and societal benefits. Based on third party data and consumer surveys, AlphaBeta's analysis demonstrates that the benefits that Google provides to consumers, businesses, and broader Japanese society are substantial. This report estimates that Google products in Japan in 2015 supported approximately US\$15.8 billion (¥1.9 trillion) in consumer benefits and more than US\$6.7-14.9 billion (¥0.8-1.8 trillion) in business benefits. On top of that, Google provides a range of societal benefits through supporting human capital development, local innovation and not-for-profits as well as applying its products to task such as disaster relief. While difficult to quantify, these societal benefits are also extremely large.

The benefits Google provides are very diverse in nature. Due to these fundamental differences this report does not aggregate the benefits together into one figure, but instead reports each of the benefits separately.

These are gross benefits (which exclude second order impacts such as activity that may be displaced or induced economic benefits in the supply chain or through spending), some of which can be quantified and others which can be described in qualitative terms. These benefits are not to be confused with GDP contributions, but while not fully captured by traditional economic measures, they can stimulate GDP and job creation across the economy through several channels.

The analysis is confined to sizing the benefits of Google's core products, and does not include an estimation of the broader economic impact of Google's Android operating system, nor the products of Alphabet, which is the parent company of Google.

Japan is facing several economic headwinds. The country struggles to escape deflation, and an ageing population is becoming an increasing drag on workforce participation and growth, intensifying the fiscal pressures of providing social-security and healthcare benefits. Without drastically boosting productivity, growth in Japan could average just 1.3% through 2025. Academic

evidence has found that Japan has the potential to double its current rate of productivity growth. If this is achieved, Japan could boost annual GDP growth to approximately 3%, resulting in an additional US\$1.4 trillion (¥169 trillion) in GDP by 2025.¹ The digital economy as a whole as well as digital multinational enterprises such as Google have a critical role to play in helping Japan achieve this productivity growth.

Consumer benefits

The consumer benefits supported by Google come in the form of convenience, access to information and time saved in the everyday lives of Japanese. In 2015, we estimated that more than 35 million people used Google Search in Japan. Approximately 50 million Japanese watched YouTube. Over 15 million drivers relied on Google Maps to aid them in their battle against traffic and more than 15 million Japanese communicated using Gmail.

Business benefits

Google helps businesses grow their customer base through Google Search and AdWords², and allows advertisers to generate net advertising benefits from displaying their advertisements on websites and videos through Google AdSense³ and YouTube.⁴ By providing diverse and inexpensive advertising channels, Google has created a new landscape of low-cost advertising that lets small businesses target customers not just in their own town but all over the country, and indeed the world, with just a few clicks and a few dollars. This has levelled the playing field for small business to compete with big business. Businesses can also boost their productivity and reduce costs by collaborating, store documents, and communicating using G Suite.⁵ These Google products support GDP and job creation across the economy as they enhance business efficiency.

Societal benefits

Beyond the benefits to businesses and individuals, Google delivers benefits to the broader Japanese society that may not accrue directly to a specific company or person. In economics, these are often termed “spill-over benefits”. These benefits might not appear in GDP measures today, but they affect other objectives we care about and will strengthen Japan’s economy over time.

These benefits are a result of the use of Google products or direct initiatives and strategic partnerships Google has engaged in in Japan. Examples include, “Women Will Japan”, the “Programming Education Gathering”, “Made in Japan” project, Google Crisis Response and “Innovation Tohoku”.

For more information please contact AlphaBeta at singapore@alphabeta.com .

¹ McKinsey & Company (2015), *How a private-sector transformation could revive Japan*, McKinsey Global Institute.

² Google AdWords is Google’s online advertising service that allows businesses to place information on Google Search results based on keywords as well as Google Display Network partner websites.

³ AdSense is a Google service that allows publishers and content creators within the Google Display Network to display AdWords ads on their websites and monetize on them.

⁴ Net advertising benefits refers to the increase in revenues and sales that can be directly attributed to advertising minus the related advertising expenditure.

⁵ G Suite is formerly known as Apps for Work.