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Saudi Arabia's AI Future: How Google is Powering the Next Wave of Economic Innovation

Methodology Note

Polling

Consumer polling claims are derived from a survey of **1,059** online adults based in KSA in March 2025, conducted in English and Arabic. All results are weighted using Iterative Proportional Fitting, or 'Raking' ("consumer poll"). The results are weighted by age group, gender, and education level to nationally representative proportions. Business polling claims are derived from a survey of **370** business leaders based in KSA in March 2025 ("business poll").

We used a range of different panel providers who contacted respondents on our behalf. In return for their participation in our survey, respondents were provided with a financial incentive.

Like all polling data, market research is susceptible to poor memory or consumers not answering truthfully. In order to reduce the risk of this, we completed a number of standard quality checks on the polling data to help ensure that respondents are paying attention:

- Excluding respondents who take too long to answer;
- Excluding respondents who 'straight-line', eg. always picking the top or left most option to every question;
- Excluding respondents who fail an attention check, eg in the middle of a longer question, we ask them to pick a particular option if they are reading;
- Excluding respondents whose answers all perfectly match another;
- Excluding respondents whose open text answers are incoherent or look like they have been generated by a computer bot.

Potential economic impact of AI

Our headline estimate for the potential impact of AI is based on the Goldman Sachs methodology for calculating the growth and productivity impact of AI.

In order to estimate the economic impact of AI, we:

- Draw on the US O*Net occupation database, which contains information on 51 different types of work activity for around ~800 types of occupations.
- Based upon Goldman Sachs' identification of the types of tasks exposed to automation by generative AI, classify the proportions of tasks in each occupation that are susceptible to automation.
- Aggregate this into broader economic categories based on their overall share of US employment and average wage bill, and then create our own crosswalk to convert the results from each occupation to the corresponding occupation in ISCO-08.
- Aggregate by wagebill, occupation and sector to produce an estimate of the total possible improvement in labour productivity.
- Assume capital intensity remains constant, and convert this labour productivity improvement into an overall improvement in GVA.

In order to estimate the impact of AI on the diversification of the economy.

- We crosswalk the findings from our headline AI impact model above to 1-digit ISIC sectors, using ILO data on wages and employment to create a weighted proportion of task automatability by sector.
- We multiply this estimated level of automation by present sectoral GVA and adjust for labour share of income to identify the labour productivity increase - i.e., the resultant increase in GVA - borne of generative AI adoption.
- We use the Herfindahl–Hirschman formula of fractionalisation to measure levels of diversification in the economy using GVA by sector before and after the modelled effects of generative AI adoption.
- We express the increase in diversification in percentage terms.

Economic impact of Google's products

Our headline estimate is the sum of our estimates for:

- **Google Ads.** We use third-party data to estimate the total size of the Google Ads market, taking the most conservative estimate of the paid search advertising market from PWC's Global Entertainment, Media & Telecoms Outlook, Statista and eMarketer, and combining this with Statcounter's estimate of Google Search's market share. Following the methodology of the US Google Economic Impact Report, we then scale this revenue by an assumed Return on Investment (ROI) factor of 8.
- **AdSense:** Global AdSense revenue is estimated using Google's published Network Revenue, with an assumption for the proportion of Traffic Acquisition Costs going to publishers based on historical data. This is then apportioned based on the country's overall share of the global display advertising market.
- **Play:** The Android App Economy's impact is estimated using total app revenue data from SensorTower.
- **YouTube:** Total YouTube ad spend is estimated by applying the country's share of global video display spending to YouTube's published global ad revenue. This is then adjusted based on an assumed revenue share going to creators.
- **Google Cloud:** The total economic activity is estimated by multiplying Google's cloud market share by the total public cloud market size in the country, drawing on data from Statista.

We then convert this into an equivalent number of jobs supported by dividing our estimate by GVA per worker.

Consumer surplus of Google's products

Following the methodology of Brynjolfsson et al (2019), we used a "willingness to accept" framing to model the current default hypothetical consumers face. As part of our consumer poll, we asked participants a single discrete binary choice question of "Would you prefer to keep access to [product] or go without access to [product] for one month and get paid [Price]" with the price offered randomised between set levels.

We regressed the results of the consumer poll to derive a demand curve and used this to calculate total consumer surplus per user. Finally, we scaled this estimate by third-party estimates of Internet prevalence and self-reported usage levels from our polling.

Number of adults using Google Search to learn a new digital skill

We asked participants in the consumer poll whether they had used Google Search in the last year, and what they had used it for (including to learn a new digital skill). We then scaled this proportion up to country-wide numeric totals using World Bank data on online adult populations.

Impact of digital skills from Google Search

We used the consumer poll to determine the percentage and frequency of adults using Google services to learn a new skill, scaling this up to country-wide numeric population estimates using World Bank data on online adult populations. We then used the academic literature on gains from work-related training to estimate the associated increase in economic value add per hour worked of acquiring new digital skills.

Impact of generative AI tools on productivity for the economy

We calculate the economy-wide improvement in productivity by multiplying the labour productivity increases projected by our headline AI impact model with our modelled adoption rate for 2024. We model AI adoption rates over time by shaping an S-curve shaped adoption path with current download rates of common AI tools (such as Gemini, ChatPGT, Claude, and DeepSeek) with the current concentration of AI technologies in patent applications in each market.

We further estimate individual worker time savings by aggregating responses from our consumer poll on the work hours spent on automatable tasks (such as data entry, data analysis, and administrative activities), benchmarking these findings against time use surveys across the world. Leaning on pilot studies and the academic literature, we then apply an assumed efficiency gain borne of AI to these work hours, expressing the result in annual hours saved.

Impact of investment in local tech sector

We use Input-Output (IO) tables from the OECD to identify the industry economic multipliers for ICT and Telecoms, taking an average of the two to represent the economic returns to spending in the tech sector across every industry, including tech itself.

We translate output effects from the IO tables into Gross Value Added (GVA) and GDP for each industry, calculating the ratio of output to GVA for each industry to identify how economic output will translate into value added.

We then apply the economic multiplier associated with the tech sector to this ratio to identify the per-industry impact on GDP of investing in tech. We sum this effect across all industries to calculate the economy-wide return on investing in tech.