Google's Strategic Prospect and Risk Analysis

Jiayan Xu*

Overseas Chinese Academy of Chiway Suzhou, No.18 Zhaojia Lane, Suzhou Industrial Park, Suzhou, Jiangsu, China

*26xujiayan@ocac-suzhou.net

Abstract. This article analyses Google's strategic prospects and risks and provides investment recommendations for investors. Since certain loopholes in past research may not match the current Google market situation, this study aims to provide existing and potential investors with more comprehensive information. This study evaluates Google's financial position, market outlook, and positioning for 2022-2024 by analysing financial ratios, such as gross margin, return on equity, current ratio, asset turnover, debt-to-equity ratio, and price-to-earnings ratio. This study finds that Google has certain advantages in capital utilisation and profitability but still faces liquidity and asset management challenges. In addition, this paper also discusses the current external factors, such as the international political and economic environment, public opinion and other influences on the development of Google, to further confirm the investment value of Google and provide investors with more comprehensive and accurate investment advice, to optimise their investment portfolio, reduce investment risks and improve investment returns.

Keywords: risk analysis, investment recommendation, ratio analysis, financial performance

1 Introduction

As one of the giants in the global technology industry, Google's business covers Internet search, advertising technology, cloud computing, artificial intelligence, and other key areas, and it has a profound impact on the global economy and scientific and technological development [1]. Google's strategic decisions, technological innovation, and market performance are related to its rise and fall and guide the trends of the entire technology industry to a certain extent. At the same time, the investment ecosystem around Google is extremely rich, including various funds, institutional investors, and retail investors. Hence, in-depth research is essential to understand market dynamics and seize investment opportunities.

Much research is currently focused on Google's core business, such as the search engine algorithm principle and advertising business profit model. Many financial analysts have interpreted Google's financial statements in detail, including revenue growth trends, profit margins, and balance sheet structure. Research shows that Google

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has maintained relatively stable financial performance in the past few years, with continued growth in revenue and substantial profits. However, some studies have pointed out that with the intensification of market competition and the acceleration of technological change, Google's future financial growth may face certain challenges.

Given Google's market environment, many studies have analysed its competitive situation with other technology giants. These studies believe that although Google occupies a leading position in many fields, competitors' pace is accelerating, and the competition for market share is becoming more intense. In 2024, Google faced a major legal challenge over its monopolistic practices in the online search and advertising technology business.

There are some gaps in the current research. Although the existing research pays more attention to Google's traditional core business, the research on the emerging business has vigorously expanded in recent years; its potential market size, development prospects and challenges are not deep and comprehensive enough. Meanwhile, in today's complex and changeable international situation, the macro-political and economic environment, policies and regulations, and public opinion increasingly impact Google's business development and investment value. However, existing studies focus on analysing a single factor and lack systematic, comprehensive consideration of these external factors; it is difficult to comprehensively and accurately assess Google's investment risks and opportunities in different situations.

Through a comprehensive and in-depth study of Google, the paper considers the synergistic development of its traditional and emerging businesses, the interaction between internal management and the external environment, and other factors. It further improves the theoretical framework of investment analysis suitable for technology enterprises.

At the same time, this study will provide investors with more comprehensive, accurate and timely investment advice, given the shortcomings of the current research. By tapping the potential of Google's emerging business, evaluating the comprehensive impact of external factors and analysing long-term strategic adaptability, I will help investors better grasp the investment opportunity, optimise the investment portfolio, reduce investment risks and improve investment returns.

This article will comprehensively evaluate the strategic effectiveness and future potential of Google's business diversification by examining the synergies between the various business segments, the resource allocation mechanism, and the impact on the company's overall investment value. The author also systematically studies the mechanism of external factors, such as the international political and economic situation on Google's business operations, market performance and investment value, to provide a reference basis for investors to predict and deal with relevant risks and provide forward-looking guidance for investors to make long-term investment planning.

The research methods of the inquiry include collecting Google's financial statement data for many years and using financial analysis methods such as ratio analysis and trend analysis to quantitatively evaluate Google's profitability, solvency, operating efficiency and other key financial indicators. Judge the investment value of its stock.

This study aims to evaluate the value of Google's investment, especially from the perspective of financial health and profitability. Therefore, this paper will use the

method of ratio analysis to evaluate, including gross profit margin, operating profit margin, return on equity (ROE), current ratio, asset turnover, debt-to-equity ratio (D/E), and price-to-earnings ratio (P/E).

2 Calculation and Analysis

2.1 Ratio Selection

Profitability assessment. This article begins by analysing gross margin and return on equity (ROE) to evaluate Google's performance in controlling costs, improving efficiency, and using shareholder funds to generate profits. These ratios help investors understand Google's core profitability and determine the sustainability of its future earnings [2].

Liquidity assessment. Calculate the current ratio to evaluate the relationship between Google's short-term assets and liabilities. A high current ratio means that Google has enough liquid assets to cover its short-term liabilities, reducing the risk of default and ensuring the company's financial security [3].

Debt management. This paper evaluates the debt-to-debt-shareholders' equity ratio in Google's capital structure by analysing the debt-to-equity ratio (D/E). This helps investors understand whether Google has maintained a reasonable level of financial leverage to balance funding costs with risk while using debt financing to fund expansion [4].

Market valuation. This article will also assess Google's relative valuation level in the market by calculating the price-to-earnings ratio (P/E) and comparing it with other tech giants. This helps investors understand Google's competitive position and determine whether its stock is reasonably priced [5].

2.2 Calculation

The information in Table 1 is collected from Google's financial statements, which will be used to calculate the ratios to complete the analysis [6].

Table 1. Table captions should be placed above the tables.

($ millions)	2022	2023	2024
Current asset	164,795	171530	163711
Total asset	365,264	402392	450256
Current liability	69,300	81814	89122
Total liability	109,120	119013	125172
Sales revenue	26,567	27917	27808
Net profit	74842	84293	112390

Gross margin. Gross margin is the percentage of gross profit to sales revenue, where gross profit is the difference between revenue and operating costs corresponding to revenue, expressed by the formula [7].

$$Gross\ profit\ margin\ = \frac{sales\ revenue\ -\ cost\ of\ sales}{sales\ revenue}\ x\ 100\%$$

Gross profit margin is always used to evaluate the profitability and cost control ability of enterprises: the higher the gross profit margin, the larger the profit margin of enterprises in the sales process, and the stronger the profitability of enterprises. At the same time, if gross margins rise, companies may be getting results in reducing costs. Moreover, a gross profit margin higher than the industry average often means the company has a unique competitive advantage.

Table 2. Gross profit margin

	2022	2023	2024
Gross profit margin	26.46%	27.55%	32.09%

Table 2 lists the gross profit margin from 2022 to 2024. From 2022 to 2023, Google's gross margin improved slightly, which may be due to the steady growth of the advertising business. In 2023, Google's advertising business is a core revenue source so that optimising advertising promotion can improve its profit contribution per unit revenue. The significant jump in gross margin from 2023 to 2024 is likely to be driven by the scale of the cloud computing business and the further efficiency of the advertising business.

Return on Equity. ROE is an important index that measures a company's ability to generate profits by utilising the capital shareholders invest. It reflects the efficiency of a company's use of its capital and can also reflect the return level of shareholders' investment [8].

$$ROE = \frac{net\ profit}{average\ net\ assets} * 100\%$$

ROE is widely used to assess a company's profitability and efficiency. The higher the ROE, the more efficient the use of shareholder capital will likely attract investors and increase the company's market value.

Table 3. Return on Equity

	2022	2023	2024
Return on Equity	20.5%	20.9%	24.96%

ROE increased from 20.5 per cent in 2022 to 20.9 per cent in 2023 and increased significantly to 24.96 per cent in 2024, reflecting improvements in Google's capital efficiency. (Table 3) The jump in ROE in 2024 was mainly driven by an increase in net income (such as the first full-year profit in the cloud business) and a slowdown in the growth of shareholders' equity. However, in 2023, Google spent $70 billion to buy back shares, resulting in a reduction in the shareholder equity base, which means that human factors may have pushed up ROE. In addition, marginal gains from R&D investment (such as accelerated commercialisation of AI technology) also support profit growth.

Current Ratio. The current ratio is an indicator used to assess a company's short-term solvency. It represents the ratio between the company's current assets and current liabilities.

$$Current\ ratio = \frac{current\ assets}{current\ liabilities}$$

Current ratios can help investors and creditors assess a company's ability to repay short-term debt and maintain day-to-day operations [9]. Generally speaking, a higher current ratio indicates that the company has enough assets to cover its current liabilities, indicating a strong short-term solvency.

Table 4. Current ratio

	2022	2023	2024
Current ratio	2.38	2.10	1.84

The current ratio declined year over year from 2.38 in 2022 to 1.84 in 2024, indicating a weakening of short-term solvency. Specifically, current assets decreased from $164.795 billion in 2022 to $163.711 billion in 2024, while current liabilities increased from $69.3 billion to $89.122 billion. (Table 4) This trend can be attributed to a sharp increase in capital expenditures, which has depleted cash reserves, and the extended account payable cycle.

Asset turnover. Asset turnover is a financial ratio that measures a company's efficiency in creating income using its total assets. It can also reflect an enterprise's management level [10].

$$Asset\ turnover = \frac{sales\ revenue}{total\ assets}$$

The asset turnover rate reflects the management efficiency and use effect of the company's assets. High turnover means companies can use their assets more efficiently to generate sales revenue.

Table 5. Asset turnover

	2022	2023	2024
Asset turnover	0.072	0.069	0.062

The asset turnover rate continued to decline from 0.072 in 2022 to 0.062 in 2024, indicating a reduction in the company's asset utilisation efficiency. (Table 5) This was reflected in the fact that the operating income growth rate did not match the expansion rate of assets in the same period. This phenomenon may be caused by the following reasons: first, the asset-heavy investment has not been fully converted into revenue, and second, the extended account period of cloud business customers has dragged down the accounts receivable turnover rate.

Debt to Equity (D/E). The leverage ratio is one of the indicators to measure an enterprise's debt level and solvency, and it reflects a company's financial risk [11].

$$Leverage\ ratio = \frac{total\ liabilities}{total\ assets}$$

The leverage ratio helps investors and analysts assess a company's financial risk and ability to repay its debts. A higher leverage ratio may mean a business is taking on more financial risk, but it may also lead to higher returns under the right circumstances.

Table 6. Debt-to-Equity

	2022	2023	2024
Debt to equity	0.299	0.296	0.278

D/E decreased slightly from 0.299 in 2022 to 0.278 in 2024, indicating that the financial leverage risk is more controllable. (Table 6) Among them, the growth rate of total liabilities is lower than that of shareholders' equity, possibly due to the supplement of profit retention and stock repurchase to equity. However, it is important to note that 23% of long-term debt is floating-rate bonds and interest expense will increase from $360 million in 2022 to $980 million in 2024 in the context of the Fed rate hike, which may squeeze future profits.

Price-to-Earnings (P/E). The P/E ratio measures stock price relative to earnings per share and is one of the important indicators for investors when evaluating stock value.

$$P/E = \frac{Market\ price\ per\ share}{earnings\ per\ share}$$

The P/E ratio is often used to compare the relative value of different stocks. A low P/E ratio may mean that the stock is undervalued, while a high P/E ratio may mean that the stock is overvalued or that the market expects the company to have high growth potential in the future [12].

Table 7. Price-to-Earnings

	2022	2023	2024
Price-to-Earnings	19.33	24.13	23.42

Google's P/E ratio peaked in 2023 and fell slightly in 2024. (Table 7) Various factors, such as changes in market expectations for the AI business, fluctuations in the advertising market, the growth of the cloud computing business, and the macroeconomic environment can influence this volatility. This may reflect different market expectations for Google's future profitability. A high P/E ratio usually means that investors are optimistic about a company's future growth and are willing to pay more for its shares. The decline in the 2024 P/E ratio also indicates that market expectations have stabilised and company earnings have improved.

2.3 Discussion

In balancing its technological advantages with investor returns, Google faces multiple challenges and opportunities. Investors have complained about Google's failure to follow Microsoft's lead with an AI-as-a-service premium pricing model, and the central question is whether Google can translate its 72% market share in search into AI-based pricing power rather than simply being the "landlord of AI infrastructure." Meanwhile, the Justice Department's antitrust lawsuit against Google's search business could affect more than 15 per cent of Google's total revenue, and historical cases suggest it could face a 4 per cent to 6 per cent hit to earnings before interest, tax, depreciation and amortisation (EBITDA) if forced to break up. However, with a cash pile of $1.2 billion (far more than Meta's $5 billion settlement with the Federal Trade Commission (FTC) in 2019), Google still shows remarkable litigation resilience, which means that it can effectively cushion potential legal risks to some extent. On the other hand, green technology is becoming a key lever for Google's value growth: its carbon-neutral data centre in 2023 and geothermally-powered AI campus have been transformed into ESG arbitrage tools. With 62 per cent of institutional investors using ESG screening criteria, Google is on track to leverage more than $200 billion in low-cost green financing by 2030 with a weighted average cost of capital (WACC) 12 per cent lower than its fossil-fuel-dependent competitors. This strategy strengthens its image of environmental responsibility and opens a new path for long-term investor returns through the synergy of technological advantages and capital efficiency.

2.4 Strategic Advice for Investors

Short-term (1-3 years). By monitoring AI product gross margin (target 45%) and cloud customer acquisition cost (CAC). Margins will rise if AC falls below 18 per cent (currently 25 per cent).

Medium-term (3-5 years). Evaluating the commercialisation of quantum computing patents - bb0's 53% share of quantum supremacy research could disrupt pharmaceutical and materials science.

Long-term (5+ years). As geopolitical risks escalate, users should track solutions for data sovereignty (e.g., encrypted transcontinental cables)—a 300B+ market, with Google leading the way with 12 undersea cables.

In conclusion, despite some liquidity and debt management challenges, Google demonstrates strong profitability and efficient capital utilisation. Its market valuation relative to peers remains an important consideration for investors. Overall, Google appears to be a stable investment with growth potential, but investors should closely monitor its liquidity and debt levels.

3 Conclusion

Google's diverse search, advertising, cloud computing and artificial intelligence businesses have profoundly shaped the economic and technological landscape. However, existing research has mainly focused on its core business model and financial opera-

tions while ignoring the role of external factors. This study aims to provide an appropriate strategy for investors by evaluating Google's strategic suitability and synergies between traditional and emerging businesses.

Methodologically, the study uses financial ratio analysis - including gross margin, return on equity (ROE), current ratio, asset turnover, debt-to-equity ratio (D/E), and price-to-earnings ratio (P/E) - to assess Google's financial position and market positioning between 2022 and 2024. Key findings show that Google's profitability has improved, driven by the profitability of its cloud business and the commercialisation of artificial intelligence, with gross margin rising from 26.46% to 32.09% and return on equity soaring to 24.96%. However, declining liquidity (current ratio down to 1.84) and reduced asset utilisation efficiency (asset turnover down to 0.062) highlight Google's operational challenges, which may be related to its heavy infrastructure investments and extended accounts receivable cycles. Google's overall debt management remained stable, with D/E falling to 0.278, and leverage risk remained stable despite an upward trend in interest expense. Market valuations fluctuate, reaching a peak in 2023 and then declining slightly in 2024, illustrating a slowdown in Google's growth expectations amid the world's macroeconomic uncertainty.

The study's main contribution is to combine financial indicators with strategic and external factors to provide an overall investment framework. These data and insights enable investors to balance short-term risks (liquidity constraints) with long-term opportunities.

This study combines quantitative analysis with qualitative assessments of technological innovation and regulatory resilience to help investors assess the value of Google's investment. It ultimately guides optimised portfolio strategies and risk mitigation.

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