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Perion Network - Finding Growth Opportunities Through Innovation and Diversification

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Abstract

In this thesis, a valuation model for Perion Network, a global technology innovator in the digital advertising ecosystem, was developed by doing an examination of the business' segments, their value drivers, industry tendencies, discounted cashflows, scenario and sensitivity analysis with the purpose of making an investment recommendation. In this individual report, parts of the Company Overview, Market Overview, Search Advertising segment and parts of the Valuation are approached. In what regards the final recommendation, the price target is $43.03 per share by the end of 2024, translating into a return of 55.73% and a BUY recommendation.

Keywords (up to four)

AdTech
Advertising
AI
Diversification

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This report is part of the “Perion Network - Finding Growth Opportunities Through Innovation and Diversification” report (annexed), developed by Tiago Manuel Rogeiro Almeida and Nuno de Amorim Afonso and should be read has an integral part of it.

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Introduction

Perion Network is an Israeli technology company operating in the digital advertising space. The company operates in basically all the segments of the consumer journey. From the creative side of advertising, to helping efficiently match the publishers with the advertising without skipping other aspects like the targeting, segmentation and management & monetization of both sides. All this diversification is backed with AI, ML, innovation and years of experience and data. In this Equity Research paper, the company is analyzed to issue an investment recommendation. Based on our analysis, the resulting target price for Perion's shares for the end of 2024 is $43.03, translating into a BUY recommendation. In this individual report, a thorough overview of the company is provided, including the company's description and history, M&A activity over the years, stock and ownership structure, business model and financial analysis. This is followed with the macroeconomic outlook analysis and its projections, alongside the implications of the Israel-Hamas conflict for Perion, given its headquarters. From there, the Search Advertising segment is analyzed, where a first market overview is provided to better understand this segment in regard to Perion. The forecast of this segment's revenues is followed, with a close look to its drivers and assumptions. Afterwards, part of the Opportunities, Challenges, and Risks is covered. By then, the base for the Valuation is set and, in that chapter, this individual report covers the cost & tax structure used for the forecast of the income statement, a pessimistic scenario for Perion and the sensitivity analysis. For the complementary report, the competitor's analysis is scrutinized, alongside the industry outlook, in order to complement the holistic view of the company. Also, the complex Digital Advertising segment is analyzed, providing a similar approach as the one for the Search Advertising segment. As per the valuation, the WACC and the DCF model are explained, the balance sheet drivers are examined, a relative valuation is made, and an optimistic scenario is presented. This all culminates into the final BUY recommendation.

Company Overview

Company Description and History

Perion

Figure 1- Perion's logo

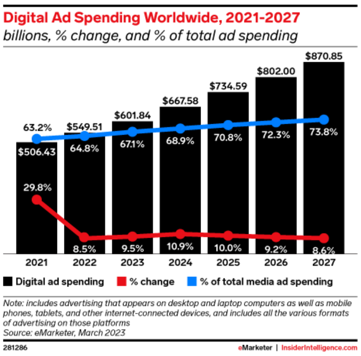

Figure 2-Digital Ad Spending worldwide until 2027
Source: eMarketer

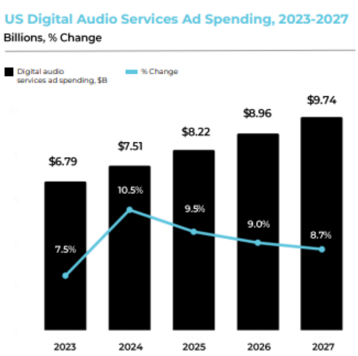

Figure 3-Digital Audio Services Ad Spending worldwide until 2027
Source: eMarketer

New York
Atlanta
London
Boston
Toronto
Bristol
Tel Aviv
Kyiv
Los Angeles
Holon
Chicago

Figure 4- Perion's offices across the globe
Source: Perion's Website

2022

	Revenue from Search	Revenue from Display
North America	240,427	321,014
in %	*86%*	*89%*
Europe	36,344	36,069
in %	*13%*	*10%*
Other	2,796	3,607
in %	*1%*	*1%*
Total	279,566	360,690
in %	*100%*	*100%*

Figure 5- Revenue breakdown by geography

Perion Network is a global technology company that specializes and innovates in digital advertising solutions. Its mission revolves around empowering brands, agencies and publishers to unlock lucrative growth opportunities, especially by maximizing their online presence and, thus, increase revenues. To make this happen, Perion provides strategic, data-driven advertising and engagement solutions, using AI and machine learning, which allow businesses to efficiently target their audiences. The Company operates across the three main pillars of digital advertising: ad search, social media and display/video/CTV; which represents an addressable market of $602 billion in 2023, with an expected growth of $871 billion by 2027, according to eMarketer (figure 2). Moreover, it has entered the $6.8 billion U.S. digital audio market, which is expected to grow to $9.7 billion by 2027, according to the same source (figure 3). The company is known for developing own innovative and cutting-edge software platforms and technologies, such as iHUB, SORT, and most recently, WAVE.

Through its diversified portfolio of companies and brands, Perion can strategically position itself in every direction when it comes to delivering high-impact advertising solutions, regardless of how branded and e-commerce spending is evolving. This allowed Perion to be a trusted partner in the digital marketing landscape, growing in importance in these last few years and winning multiple awards for their platforms and innovative high-tech solutions. A pivotal differentiator for Perion is their "Capture and Convince" motto, leveraging AI and machine learning to analyze numerous content and advertising combinations, significantly enhancing engagement for new users. In fact, according to Perion, this new user loop has been shown to engage new users for an average of six minutes, a groundbreaking achievement in the industry, in an era where attention spans are rapidly declining to just a few seconds.

Even though headquartered in Holon, Israel, the company operates at a global scale, having offices in multiple cities observed in figure 4. Its revenues come mainly from North America and Europe as shown in figure 5. Therefore, their main market is the United States, and it is the source of revenues from where they expect to keep operating and grow the most. As observed in figure 6, the company is heavily reliant on its search services agreement with Microsoft Bing, accounting for 37% and 35% of its revenue, in 2021 and 2022, respectively. This agreement, initiated in 2010 and renewed three years ago until the end of 2024, saw Perion's search advertising business unit, CodeFuel, honored by Microsoft Advertising as the "Global Supply Partner of the Year" in 2022.

The company was founded in 1999 by two Israeli cousins, Yaron and Ofer Adler, under the name IncrediMail. As the name entails, at first, the company's main focus was email-related software and solutions. Until 2010, the company was managed by the two original founders, when the former CEO of American Greetings Interactive, Josef Mandelbaum, was appointed the new CEO. In 2011, the company changed its name to Perion, the Hebrew word for productivity. In 2017, the CEO stepped down, being replaced by Doron Gerstel, which, in short time, led a company turnaround that saw a strengthened financial position, reducing the previous debt by 48%, from $77.7 million in 2017 to $40.5 million in 2018, and reducing Perion's operating expenses by 21% from $108.4 million in 2017 to $86.0 million in 2018. Since then, Perion's market cap increased twelvefold under his guidance, increasing from $120 million to $1.67 billion, as seen in figure 7.

Recently, the company underwent through a CEO transition period, with Mr. Gerstel stepping down from the executive team and remaining in the board of directors, and Tal Jacobsen, former general manager of Perion's search advertising unit, being promoted to CEO on the 1st of August of 2023.

	2018	2019	2020	2021	2022
Bing	45%	63%	51%	37%	35%
Others	55%	37%	49%	63%	65%
Total	100%	100%	100%	100%	100%

Figure 6- Revenue breakdown by customer

Figure 7- Perion's Market Cap increase during Doron Gerstel's guidance
Source: MacroTrends

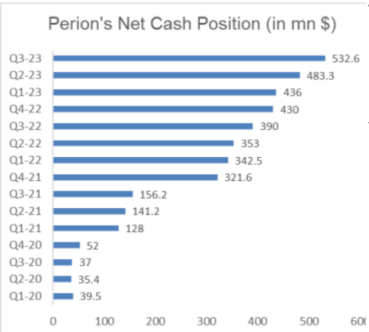

Figure 8- Perion's net cash position
Source: Perion's website

M&A Activity

Perion's tremendous growth and the shift from email-related solutions to the Adtech space was a progressive journey, bolstered by a series of strategic acquisitions over the years. By doing so, the company has now many subsidiaries, which are 100% owned directly or indirectly by Perion. This structure affords them the liberty to innovate across diverse channels within the realms of digital advertising while remaining shielded from allocation shifts and specific industry constraints. Tal Jacobsen, the current CEO, has already stated that the company will continue to look for strategic acquisitions that can accelerate its growth and diversify its activity. The strong net cash position observed in figure 8 allows them to explore these opportunities. Below, one can find the timeline of Perion's acquisitions throughout the years and how they impacted the activity of the company:

2011- In August, while operating as IncrediMail, Perion acquired Smilebox for $40 million. According to the CEO at the time, the acquisition was meant to diversify the company's product portfolio and increase its premium subscription base. One year later, he said that the acquisition exceeded expectations, with Smilebox's product line generating revenues of $15 million, up from the $11.5 the previous year due to revenue and cost synergies.

2012- In November, Perion purchased Israel-based SweetPacks (or SweetIM) for approximately $43 million. Perion's CEO at the time stated this acquisition would improve the company's back-end systems, accelerating growth and increasing margins and revenues. One year later, this indeed materialized, with results beating expectations and Perion reporting a profit of $2.9 million up from $370,000 in 2012.

2014- In January, Perion acquired a unit of Conduit's business, ClientConnect, which included a monetization and distribution platform for publishers and developers. This was an all-stock transaction valued at $660 million. This move broadened investments in mobile space and data analytics, thus further diversifying revenue streams. In just one quarter after the integration, revenues were 9% higher than previous combined revenue. In June of the same year, Perion acquired Grow Mobile, a mobile advertising management platform for approximately $42 million. The reasoning behind this acquisition was the acceleration of the company's position as a leader in the management of mobile advertising campaigns. The CEO at the time, stated that Perion was already strong on Desktop, but their main focus now was Mobile.

2015- In February, the company acquired MakeMeReach, a French social advertising technology company for around $15 million. This acquisition expanded Perion's capabilities in the social media advertising space and opened the gates to more business opportunities in Europe. Since then, the subsidiary became partner of Facebook, Snapchat, Twitter and Google, contributing to Perion's growth. In December, the firm acquired Undertone for $180 million. This merger helped Perion broaden its digital advertising offerings, especially in the mobile space. This propelled Perion even higher, solidifying its position as a leader in creating impactful advertising solutions. At the day of the announcement, Perion's shares soared by more than 10%.

2019- In March, under a new CEO, Perion acquired for $3.75 million Ukraine-based AI startup

Captain Growth. This deal complemented Undertone, which began using Captain Growth's AI capabilities.

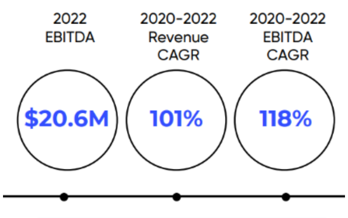

Figure 9- Vidazoo's Financial Performance Source: Perion's Q4 2022 presentation

2020- In January, the company acquired Content IQ, a New York-based startup that specialized in tracking and analytics tools without cookies by $73 million. This acquisition filled a strategic focus of Perion in the market, enhancing the company's content monetization capabilities and bringing synergies. In July, Perion bought the assets of a rapidly growing digital publisher-focused company named Pub Ocean for $22 million. The main purpose of the acquisition were the synergies between Content IQ and the company, enhancing profitability, growth and building a "new media supply chain". One year later, in the Q4 2021, the company reached record revenues, growing 34% from the Q4 2020, and increased profitability, growing 93% YoY when accounting for EBITDA/Rev. Both acquisitions helped Perion in this regard, as acknowledged by its CEO.

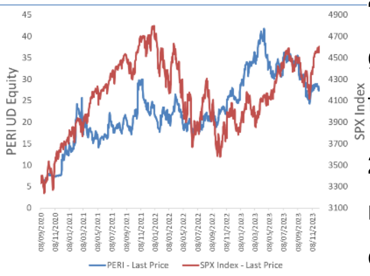

Figure 10- Perion's share price and its comparison with the SPX Index

2021- In October, the firm acquired Vidazoo an Israeli video technology company. The deal was made for $93.5 million. The purpose of this was to generate incremental revenues through its set of video products, exploring the video monetization space further. As seen in figure 9, boosted by the exposure of all Perion's assets to Vidazoo, this made the subsidiary to grow tremendously. Also, in 2022, Perion's video revenue increased by 129% YoY.

Stock and Ownership Structure

Perion Network, at the time Incredimail, launched its Initial Public Offering (IPO) in January 2006 on the NASDAQ, under the ticker MAIL. It raised $18.75 million in an issue of 2.5 million shares at $7.5 each. Since 2007, the company's shares are also traded in the Tel Aviv Stock Exchange. In 2018, the company had a reverse stock split at the ratio of 3:1. Currently, 11th of December 2023, the company has 47,392,072 shares outstanding, with a price of $27.63 Historically, the price has ranged between $2.145 and $44.1. Since January 31, 2006, Perion Network's market cap has soared from $79.80M to $1.38B, an increase of 1,629.32%. That is a CAGR of 16.55%. Analyzing the last 5 years, the stock price has soared, increasing approximately 935% from $2.67 to $27.63. This is a reflection of the recurring growth in net income during the time period, which can also be observed by the EPS increase (figure 11), from 0.31 to 2.21, a 48% CAGR. Moreover, as shown in figure 12, the fact that Perion keeps beating the estimates is a positive sign for investors, and that usually boosts Perion's stock price after releasing earnings. Also, the company does not pay dividends.

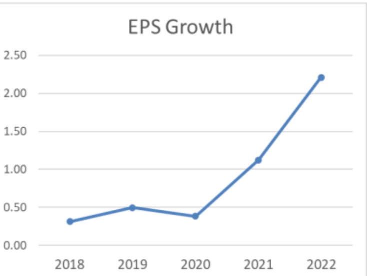

Figure 11- Perion's EPS growth in the last 5 years

In thousands of USD ($)	2018	2019	2020	2021	2022
Revenue					
Consensus Estimate	255.0	259.3	321.4	465.5	634.7
Comparable Actual	252.8	261.5	328.1	478.5	640.3
Revenue Surprise in %	*-0.8*	*0.8*	*2.1*	*2.8*	*0.9*
Earnings Per Share (EPS)					
Consensus Estimate	—	0.59	0.80	1.43	2.30
Comparable Actual	0.65	0.83	0.91	1.57	2.06
EPS Surprise in %	—	*40.0*	*13.3*	*9.5*	*-10.3*
EBIT					
Consensus Estimate	12.9	16.6	9.9	42.3	104.4
Comparable Actual	19.8	22.7	12.3	59.7	109.2
EBIT Surprise in %	*53.8*	*36.6*	*24.3*	*41.2*	*4.5*
EBITDA					
Consensus Estimate	22.3	29.1	32.0	64.5	131.0
Comparable Actual	29.6	32.4	32.8	69.6	132.4
EBITDA Surprise in %	*32.5*	*11.3*	*2.5*	*7.8*	*1.0*
Gross Margin %					
Consensus Estimate	90.40	89.93	69.08	59.55	88.30
Comparable Actual	90.6	90.2	93.1	94.7	95.3
Gross Margin Surprise in %	*0.2*	*0.3*	*34.8*	*59.1*	*7.9*
Net Income					
Consensus Estimate	—	15.5	13.3	54.3	112.3
Comparable Actual	17.8	21.6	26.6	60.0	119.8
Net Income Surprise in %	—	*39.3*	*99.5*	*10.4*	*6.7*

Figure 12- Comparison between Perion's estimates and reported numbers Source: Bloomberg

Regarding Perion Network's ownership, the company is heavily dominated by institutional investors, around 64%, while individual stakeholders only own around 36% of the total shares outstanding. However, no single individual institution has a major position in the company as one can acknowledge in figure 13, where the breakdown of the top 10 shareholders is illustrated.

Business Model

Perion has suffered several transformations and business model shifts over the years, as one can observe in the M&A Activity disclosed above. Today, its revenue generation model is markedly different from a decade ago and is poised for further evolution. One proof of this is the recent announcement on its Q3 earnings presentation, with Perion entering the digital audio market with its generative AI-powered dynamic audio solution, WAVE. As of today, the company separates its business in two big segments: Search Advertising and Display Advertising, which account for 44% and 56% of the company's revenues, respectively (figure 14). Embedded within the Adtech and digital advertising space, these segments develop an array of sophisticated

Stockholder	Stake
Harel Mutual Funds Ltd.	6.44%
Clal Pension & Provident Funds Ltd.	5.74%
Migdal Insurance Co. Ltd.	4.42%
Acadian Asset Management LLC	4.13%
Private Capital Management LLC	3.11%
Vanguard Group Inc	3.11%
Arrowstreet Capital LP	2.94%
Renaissance Technologies LLC	2.71%
Menora Mivtachim Insurance Ltd.	2.58%
Victory Capital Management, Inc	2.37%

Figure 13- Perion's top 10 shareholders
Source: Yahoo Finance

Revenue Breakdown by segment

In Millions of USD ($)	2018	2019	2020	2021	2022
Revenue:					
Display Advertising	125,977	87,863	148,698	265,323	360,690
in% of Total Revenues	**49.8%**	**33.6%**	**45.3%**	**55.4%**	**56.3%**
growth (in %)		-30.3%	69.2%	78.4%	35.9%
Search Advertising	126,868	173,587	179,365	213,175	279,566
in% of Total Revenues	**50.2%**	**66.4%**	**54.7%**	**44.6%**	**43.7%**
growth (in %)		36.8%	3.3%	18.8%	31.1%
Total Revenue	252,845	261,450	328,063	478,498	640,256

Figure 14- Revenue Breakdown by segment

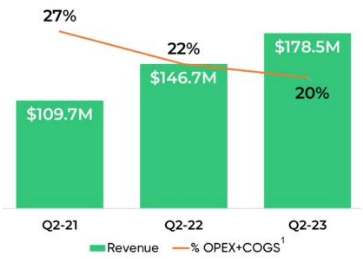

Figure 15- Cost efficiencies boosted by iHub
Source: Perion Q3 presentation

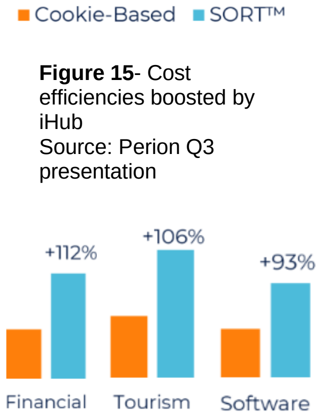

Figure 16- Lift in CTR by comparing SORT and Cookie-based targeting
Source: Perion's Website

Figure 17- Microsoft Bing logo

technology solutions, empowering advertisers and publishers to optimize their online advertising campaigns. Perion's technologic advancements and innovations, alongside acquisitions in these last few years, have allowed them to operate across the main pillars of digital advertising, providing diversification of its revenue streams.

At the core of Perion's operations stands the proprietary Intelligent Hub (iHUB), a pivotal tool which connects the supply and demand sides of the advertising marketplace. The platform acts as a shared infrastructure resource consisting of an ad-server and a central real-time bidding engine. As shown in figure 15, this allows the firm to eliminate excessive expenses. The iHUB processes billions of signals, connecting advertisers and publishers in a better way, increasing customer value, and improving their return on investment (ROI). Other important tool that Perion has to outperform the market and have a competitive advantage for the years to come is the SORT (Strategic Optimization of Relevant Traits) technology. This solution, covered by a provisional patent, eliminates the need for cookies and, according to the company, can outperform first-party cookies, driving results up to 2x higher. In fact, according to an internal study conducted by Perion, comparing the performance of SORT and cookie-based targeting, when adopting the cookieless solution, the clickthrough rate in sectors as Financial, Tourism and Software can improve by 112%, 106% and 93%, respectively (figure 16). Also, Google plans to end third-party cookies in 2024, postponing the date to the end of the year, presumably because they were unable to develop a satisfactory replacement solution. This makes SORT, a catalyst of change, placing Perion at the forefront of innovation. The technology uses proprietary machine learning to predict consumer mindset in real-time based solely on cookieless data signals, without browser & device limitations cookie-based approaches face. It does not collect any Personally Identifiable Information (PII), adhering to all industry regulations and increasing privacy on campaigns. This is of extreme importance to consumers, as attested by a 2021 study, conducted by Lucid, on consumers' sentiment towards ad targeting & privacy. For instance, 53% of consumers favor brands who protect their privacy and 74% would like ads to have a clearly visible seal that can guarantee that the brand is not tracking them. Perion took a proactive approach to address these concerns by putting a privacy protection shield logo on all campaigns using the technology, therefore, consumers know that they are not being tracked.

Display Advertising Revenue ("Advertising") - one source of revenues for the company is via the delivery of high impact ad formats through the different channels where it is positioned– display, social media and video/CTV. Also, the company is entering the digital audio market soon. In a time where attention is difficult to capture, brands and advertisers are in a war to get people to engage with their products. These advertising solutions are designed to capture consumer attention and drive engagement across a vast portfolio of websites and mobile apps. Creativity is the key here and Perion tries to explore unconventional approaches, transforming awareness into performance. Besides, there is a strong focus on reaching the right audience, and Perion, through AI and machine learning, optimizes consumer groups, especially by predicting how they will respond to its High Impact Advertising, at scale. In addition, the company generates revenue from the use of its platform in online media channels which connects video and display advertisements derived from advertising partners to advertising inventory available within its publisher's network. Moreover, the firm also leverages data collected from user interactions and behaviors to offer data monetization services. They provide data insights and analytics to businesses, which allow them to track performance of their campaigns.

Search Advertising Revenue ("Search Monetization") - the other source of revenue for the company is through service agreements with its search partners. Search revenue is generated primarily from monthly transaction volume-based fees earned by the company for making its applications available to online publishers and app developers on a revenue share basis relative to the revenue generated by the search partners. As previously said, almost all revenue from search advertising comes from Perion's partnership with Microsoft Bing. That being the case, the success of Bing's innovations, especially through the addition of ChatGPT to their search offering, will determine Perion's growth in this segment. The ability of Bing to increase their revenue per search, is driven by the supply of search advertising inventory relative to demand, as well as internal pricing dynamics. The higher the market share and the average daily searches, the higher the growth, for both Bing and Perion. The company deploys advanced AI, neural networks, and machine learning to optimize yield for its publishers and transform search into revenue.

Figure 18- ChatGPT logo

Activity Ratios					
	2018	2019	2020	2021	2022
Receivables	55,557	49,098	81,221	115,361	160,488
Sales	252,845	261,450	328,063	478,498	640,256
Average Collection Period	**80**	**69**	**90**	**88**	**91**
Payables	38,208	47,681	72,498	107,730	155,854
Cost of Sales	193,101	196,147	259,188	366,424	459,019
Average Payable Period	**72**	**89**	**102**	**107**	**124**
Cash Conversion Cycle (CCC)	**8**	**-20**	**-12**	**-19**	**-32**

Figure 19- Activity Ratios in the last 5 years

Financial Analysis

To get a grasp of the company's position in terms of profitability, capital structure and value creation, we performed a series of ratios that are useful to assess the company's situation. However, these metrics alone are meaningless if the industry and company's specific conditions are not considered, something we also try to address in the analysis done below. Also, one note on what we consider Perion's cost of sales. Even though one of the company's cost captions translates to "Cost of Revenue", we assumed the cost of sales to be the sum of that caption with "Selling and Marketing Expenses", and "Traffic acquisition costs and media buy" since we believe they are the more direct costs related to sales.

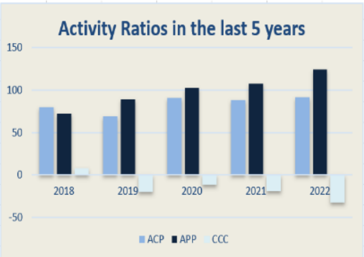

Figure 20- Evolution of ACP, APP and CCC in the last 5 years

Regarding the activity ratios, they measure the efficiency of a business in using and managing its resources to generate maximum possible revenue. Due to the nature of Perion's business, there are no inventories and, on figure 19 and 20, the evolution of these ratios is disclosed. As one can observe, the company has been having a negative cash conversion cycle, meaning that suppliers are financing the activity of the company. This makes sense given the nature of the business in the digital advertising landscape.

Liquidity Ratios					
	2018	2019	2020	2021	2022
Current Assets	103,893	115,107	147,359	446,171	603,458
Current Liabilities	77,114	83,308	120,113	193,707	234,608
Current Ratio	**1.35**	**1.38**	**1.23**	**2.30**	**2.57**
Current Assets - Inventories	103,893	115,107	147,359	446,171	603,458
Current Liabilities	77,114	83,308	120,113	193,707	234,608
Quick Ratio	**1.35**	**1.38**	**1.23**	**2.30**	**2.57**
Cash and Equivalents	39,109	38,389	47,656	104,446	176,226
Current Liabilities	77,114	83,308	120,113	193,707	234,608
Cash Ratio	**0.51**	**0.46**	**0.40**	**0.54**	**0.75**
Net Working capital	**26,779**	**31,799**	**27,246**	**252,464**	**368,850**

Figure 21- Liquidity Ratios

In terms of the liquidity ratios, they are used to determine a company's ability to pay its short-term liabilities. As we can see in figure 21, the company has been improving its position, with its Current Ratio being 2.57 in 2022, meaning that the business has 2.57 times more current assets than liabilities to covers its debts. Hence, the rule of minimum short term financial equilibrium has been verified for the last 5 years, hinging on the firm's ability of executing all of its current assets, particularly the short-term deposits and receivables. Also, its cash ratio has also been improving, growing from 0.51 to 0.75 between 2018 and 2022.

Capital Structure and Leverage Ratios					
	2018	2019	2020	2021	2022
Assets	256,446	283,777	358,681	713,232	870,218
Equity	148,781	165,182	184,122	466,960	583,134
Asset to Equity Ratio	**1.72**	**1.72**	**1.95**	**1.53**	**1.49**
Debt	32,726	40,696	30,545	13,389	11,480
Equity	148,781	165,182	184,122	466,960	583,134
Debt to Equity Ratio (D/E)	**0.22**	**0.25**	**0.17**	**0.03**	**0.02**
Equity	148,781	165,182	184,122	466,960	583,134
Liabilities	107,665	118,595	174,559	246,272	287,084
Solvency Ratio	**1.38**	**1.39**	**1.05**	**1.90**	**2.03**
Equity	148,781	165,182	184,122	466,960	583,134
Assets	256,446	283,777	358,681	713,232	870,218
Financial Autonomy Ratio	**0.58**	**0.58**	**0.51**	**0.65**	**0.67**
Debt	32,726	40,696	30,545	13,389	11,480
Debt + Equity	181,507	205,878	214,667	480,349	594,614
Gearing Ratio	**0.18**	**0.20**	**0.14**	**0.03**	**0.02**

Figure 22- Capital Structure and Leverage Ratios

Analyzing Perion's debt situation, we can check by the balance sheet that it does not have debt in a direct way, having fully repaid its long-term debt in 2019. Nowadays, the company only has lease liabilities (short and long term), which are mainly for the company's offices in Israel and the United States. We consider them as debt, since it is, for all intents and purposes, a way the company has to finance itself. So, looking at Perion's capital structure and leverage ratios, we can see in its evolution in figure 22 that the company has a strong healthy position in this regard. Its debt-to-equity ratio (D/E) shows how much debt the company has compared to its assets and the value in 2022 was 0.02. Its solvency and gearing ratios, also used to assess a company's financial health are also in what could be considered solid levels, with 2.03 and 0.02 respectively.

About profitability and value creation, multiple margins were calculated, which helped us in assessing how well the company is and will be able to make profits from its operations. Looking at the margin's ratios in the last 5 years (figure 23), it is clear that most margins have been increasing, with the exception of the gross margin, which has been maintaining values slightly above 35%. On the other hand, for instance, EBITDA margin was 9.7% in 2018, soaring to 19.2% in 2022, showing an improved profitability position. For a greater analysis on important return metrics as ROE and ROIC, we decomposed both to get a better grasp of what is driving growth. Regarding ROE, it has been improving with time, especially from 2021 to 2022, increasing from 8.2% to 16.9%, which is mostly explained by the boost in revenues. We also forecast this trend to continue in the future due to strong growth in revenues, compared to equity. As for ROIC, it is expected to be higher than the cost of capital, which would mean that the company would be investing in profitable projects, thus, creating value. This has been the case in the last 2 years, reaching 23% in 2022. Also, we expect ROIC to keep high values for the years to come, even though fierce competition might challenge this. The evolution of return ratios is shown in figure 24.

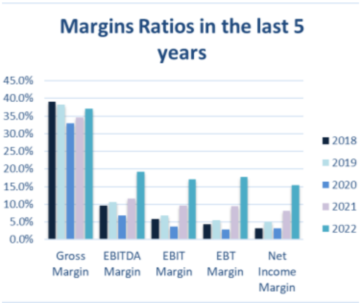

Figure 23- Margin Ratios Evolution

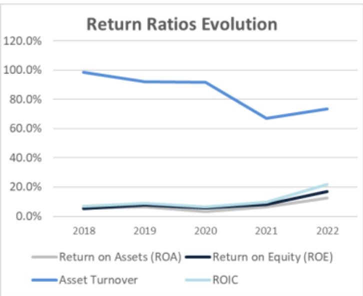

Figure 24- Return Ratios Evolution

Market Overview and Sector Outlook

Macroeconomic and Geopolitical Outlook and Projections

Recognizing the intrinsic interconnectedness of all business sectors with the world's economy, it becomes paramount to acquire a macroeconomic overview of ongoing events, short and long-term projections, and the potential impact in the Adtech sector and Perion Network, specifically. Moreover, the escalating geopolitical tensions bring the necessity of the inclusion of these risks in economic projections. The company analysed faces a challenging situation due to its headquarters being located in Israel, amidst the looming Israel-Hamas war. All the following analysis was extensively done and incorporated with regards to our forecasts.

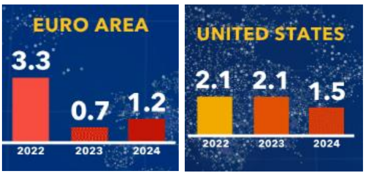

Figure 25- IMF growth projections (in %) for the Euro Area and the US
Source: IMF website

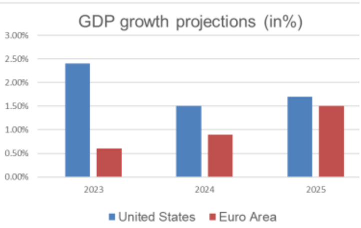

Figure 26- OECD growth projections
Source: OECD website

	December 2023				
	2022	2023	2024	2025	2026
Real GDP	3.4	0.6	0.8	1.5	1.5
HICP	8.4	5.4	2.7	2.1	1.9

Figure 27- ECB growth and HICP projections
Source: ECB website

Amidst these turbulent times, economic projections for the near future, as presented by the IMF, OECD, and ECB, maintain positivity, albeit at a notably slower pace than the past two decades. In figure 25, 26 and 27 one can observe next years' projections for the regions that matter the most to Perion, namely the United States and the Euro Area. Multiple factors contribute to this economic slowdown during these next years, in fact, according to a survey conducted by McKinsey, the most-cited risks to economic growth in 2024 include inflation, high interest rates, geopolitical instability/conflicts and slowdown in China's economic activity. The unprecedented rise in prices observed in the last few years, especially since the pandemic, pushed central banks from across the world to raise interest rates, which before that were near 0%, as it can be observed in figure 28. Consequently, borrowing costs are much higher now than they were a few years ago, and for some companies this could be troublesome if they were to indebt themselves at this time or had previous debt at a variable interest rate. For Perion this is not the case, since the company holds almost no form of debt, having a strong cash position which allows them to have the flexibility to invest quickly in business opportunities (especially acquisitions). In fact, Perion is benefiting from this situation since it has excess cash allocated in high yield deposits. Regarding inflation, it has been declining, however, it has been showing some signs of stickiness, not dropping as much as anticipated with such a high level of interest rates. This has been impacting markets, fearing high levels of inflation, rates to hold for longer or even potential new hikes. Investors also fear a potential recession caused by these factors. The prevailing uncertainty and volatility are focal points today and are likely to persist in the near future, which

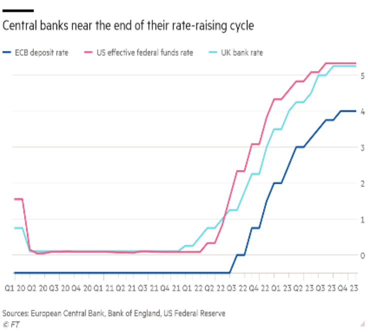

Figure 28- Interest Rate evolution in the US, UK and ECB
Source: Financial Times

can cause Perion's stock price to decrease. Nevertheless, the projections for the inflation rate are positive, suggesting a halt in interest rate hikes and subsequent decreases in the upcoming months and years. The OECD projects Headline inflation to fall from 3.9% this year to 2.8% in 2024 and to 2.2% in 2025.

All things considered, the forthcoming years' projections are shrouded in uncertainty. Economies face a great challenge with high interest rates and inflation. The resilience and responses of key players, especially the United States, Europe, and China, will dictate the outlook for the years to come.

Israel-Hamas conflict and its implications to Perion Network

Figure 29- Perion's stock price in the last quarter

The tensions between Israel and Palestine have been present for many years, having the situation escalated in these last few months, with Israel declaring war against Hamas on October 8, 2023. This situation has been impacting the markets, with many stocks tumbling and leaving investors concerned. For Israeli companies like Perion Network, the risks are (presumably) much higher and the markets also reflect that, with Perion's stock falling almost 22% in the last quarter, as seen in figure 29. Since its headquarters are located in Holon, Israel, the company faces potential challenges arising from this regional instability.

The perception and reputation of companies located in conflict zones usually face challenges. Global perception, partnerships, client relations, and investor confidence could be influenced by the conflict. Regulatory and governmental changes are also possible since alterations in policies or regulations could be prompted, which could impact the company's operations and financial outlook. There may be restrictions to work with Israeli companies in the future, or companies might stay away from dealing with Israeli companies because of the conflict. It is also important to recall the analysis on Perion's revenue breakdown by geography in figure 5. Even though the company does not break the "Other" category by country, it does put a ceiling on Perion's business in Israel at 1%. Therefore, even though it is only a small portion of revenues, it may be endangered by the conflict.

For a company like Perion Network, headquartered in Israel, the implications of the Israel-Hamas conflict can be multi-faceted. However, the company looks to have strategies already implemented to navigate the challenges posed by regional instability, as the situation between Israel and Palestine has always been tense. One example of this is the fact that even Perion's servers are not based in Israel. Also, only 40% of the company's cash is currently held in Israel. Perion stated that it will lower its cash held in the country to 30% of total by the end of the year. With the majority of its business conducted in the U.S, the company anticipates minimal impact from the ongoing regional tensions. However, uncertainty reigns and the events from the next weeks/months might change this outlook.

Search Advertising

Market Overview

The search advertising market is inserted in the digital advertising industry, and it is characterized by the promotion of products or services through search engines. It is the most intent-based form of advertising, as advertisements are served in direct response to the search queries, resulting in relevant advertisements that yield significant revenue to the search engine companies. According to Statista, in 2022, U.S. search advertising spend reached $105 billion and it is expected to reach

Figure 30- Search Advertising spend forecast
Source: Statista

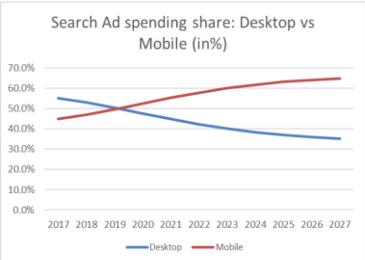

Figure 31- Search Ad Spending share between Desktop & Mobile (in %)
Source: Statista

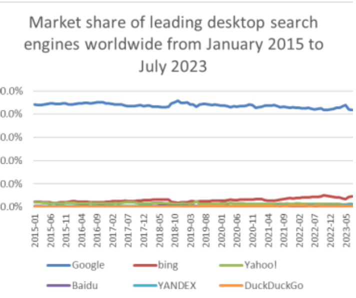

Figure 32- Market Share of desktop search engines
Source: Statista

$118 billion this year and $174.5 billion in 2027 (figure 30), representing an annual growth rate (CAGR) of 10.27% from 2023 to 2027.

For years, desktops were the primary devices used for internet browsing and search. Desktop search advertising traditionally targeted users accessing search engines via their computers. However, the rapid rise of mobile devices, such as smartphones and tablets, transformed the search advertising landscape. Mobile search advertising is now a fundamental part of digital marketing strategies due to the increasing number of users conducting searches through their mobile devices. According to Statista, while in 2017 the market share of Desktop in search advertising was 55.1%, in 2022 it decreased to 42.2%. It is expected that the Mobile share grows even further down the years, reaching around 65% in 2027 according to forecasts, as shown in figure 31. To maximize their reach and engagement in the evolving search advertising landscape, advertisers are now adopting a multi-device approach, understanding user behavior across different devices and tailoring ad campaigns to increase user engagement across all those platforms.

The search engine market is highly competitive, currently existing six major search engines, as shown in figure 32. Due to its massive user base and effective internal advertising network, Google is by far the most popular among advertisers, followed by Microsoft Bing. According to StatCounter, as of October 2023, Google had around 91.5% Search Engine Market Share Worldwide, while Bing detained 3.1%. These large search engine companies have their own search service offerings, and, therefore, Perion is competing with them and other companies that also generate revenue from searches. Understandably, even though there are only a small number of players in this segment's market, for smaller companies as Perion, it can be difficult to compete with larger companies with more financial capabilities. They need to find technological advantages to stay competitive and thrive.

The search advertising landscape, functions on an auction-based system where advertisers bid on keywords to display their ads in search engine results pages (SERPs). When a user searches for a term related to the advertised product or service, these ads are displayed prominently, marked as sponsored or ads, above or alongside organic search results. Thriving in this market requires understanding key components such as keyword targeting, where advertisers bid on keywords related to their offerings. Ad rank and quality score play crucial roles, as search engines assess ad relevance, quality, and bid to determine where the ad should be in the search page.

Perion Search Advertising Segment

As previously said, the search advertising market not only comprises search engine providers, but also companies like Perion Network and competitors, that focus on doing the best matching between the publishers' audiences and the right search solution. These companies try to optimize their search traffic, driving up their revenues, and maximizing user engagement levels. Innovation in this field is key in order to get new publishers, improve ad targeting, and ultimately find new and better ways of transforming search into revenue. For instance, Perion is a distributor for Bing globally. Microsoft has given the company the right to put Bing on browsers, devices, and websites globally for a share of the ad dollars on Bing's results pages, so, the company constantly tries to convince new clients to use this search engine. Furthermore, the technology of Perion's search solution allows publishers to access an online dashboard providing analytics, reports and performance optimization that enable them to maximize their distribution and monetization. Also, the AI technology behind the search solutions optimizes the various phases of the funnel including intent detection and demand optimization to yield performance optimization and maximized consumer experience.

Forecasts

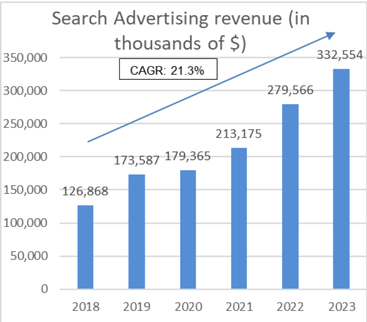

Figure 33- Search Advertising Revenue evolution

Regarding our revenue forecasts for the search advertising segment, we researched on multiple factors that may affect the company's growth in the segment, getting a compound annual growth rate (CAGR) of 9.47% between 2023 and 2031.

First off, we analysed how the revenues coming from this sector have progressed in the last 5 years. We can see that the company has been successful in growing this segment, even though as % of total revenues, the display advertising segment has been taking share, as one can see on figure 14 above. While in 2019 the search ad segment accounted for 66% of total revenues, in 2022 accounted just 44%. There has been a transition towards the display segment generating most of revenues for the company, something that can also be explained by the larger market and more diversification (CTV, Retail Media, display, and now audio). Nevertheless, the CAGR of search advertising revenue between 2018 and 2023 was 21.3%, as one can attest in the Search Advertising evolution in figure 33. The main value drivers for this have been a constant growth on average daily searches, growing from 9 to 31 million, as shown in figure 34, and a growth in the number of publishers (even though not disclosed every year by the company, the value from Q3 of this year was 164, an increase of 16% YoY). The evolution of these drivers was much due to the successful agreement between Perion and Microsoft Bing. One important assumption we make for the future is that the agreement, which ends on the 31st of December 2024, will be renewed for the years to come. This is the most likely outcome, given how well both companies have strategically worked together, creating revenue from both ends. That led us to analyse Microsoft Bing market share and its progression along the years (figure 35). In a market dominated by Google, it is difficult to win market share from them, however, the latest inclusion of ChatGPT onto Bing's search engine is game-changing, hence we believe that Bing will capitalize on this and slightly increase its market share, especially in the U.S, for the next years. It is also worth mentioning that we looked through projections of the U.S population and internet penetration rates for the next years (figure 36) and there are signs that both will increase. This also enters in equation, because there will be more people online, which will increase the number of searches.

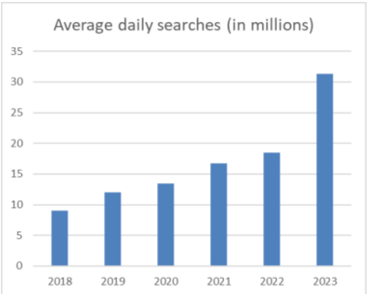

Figure 34- Perion's average daily searches delivered though publishers
Source: Perion's report

Total Bing Search Engine Market Share 2009 to 2023					
2018	2019	2020	2021	2022	2023
2.82%	2.44%	2.70%	2.58%	3.19%	2.90%

Figure 35- Total Bing Search Engine Market Share
Source: Statista

Another important aspect is the shift in advertising spending share between desktop and mobile. As it was acknowledged above (figure 31), there is a trend towards the use of mobile devices, and, according to Statista, that will materialize even further in the next few years. As said previously, this will be a great challenge to Perion, especially given the still lack of great variety of solutions for mobile. However, we believe the company is being proactive in this regard and making the necessary efforts to explore monetization from mobile searches, thus, we assume that Perion will not be impacted by this shift.

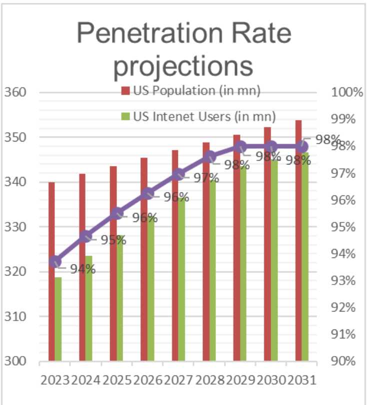

Figure 36- US Population, Internet users and Penetration Rate forecasts
Source: Statista

For the value drivers of Perion, we faced a dilemma. Even though the main drivers of the search advertising revenues are average daily searches, number of publishers and Rate per Mile (Revenue per Thousand Impressions), we decided to take the approach of adding a markup on the U.S search advertising market forecast for the years to come. This is due to the fact that not only does Perion not disclose its RPM metric, but also, it is of extreme difficulty to forecast how efficient ad placement, user engagement, quality and relevance of the ads, and so on and so forth will be. Also, the company does not disclose its number of publishers in all the years

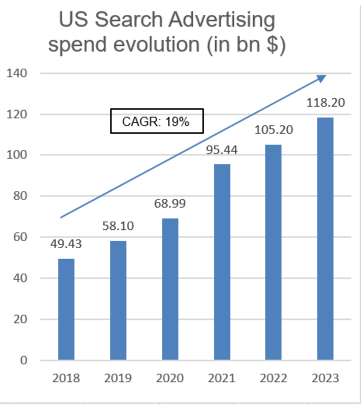

Figure 37- US Search Advertising spend evolution
Source: Statista

analyzed (only the last quarterly reports started having them). Therefore, the method to project next years' growth rate of revenues was to assume the growth rate of Statista's forecast until 2027 for the search advertising market in the U.S and add a markup over it. Since the forecast only covers 5 years, for the remaining, we decided to analyze the growth trend and noticed that since 2023, the growth rate of the search ad market in the U.S decreased by around 1% each year. Consequently, from 2028 until 2031, we assumed that the trend would continue. With regards to Perion's growth rate of this segment's revenues, we believe that the company will be able to grow above the market for the years to come, converging to the average growth in the long run. Not only we took into account all the upside drivers described above, but also looked through the CAGR from 2018 to 2023 from the company and compared it with the market. During that time period, Perion had a CAGR of around 21.3% (figure 33), while the search advertising market in the U.S had approximately 19.1% (figure 37). Therefore, we used this difference of around 2% as our markup from 2024 until 2027, decreasing it to 1% for the next 2 years and even further to 0% from 2030.

Opportunities, Challenges, and Risks

As previously mentioned, the company is in a privileged place in the market due to its longstanding partnership with Microsoft Bing. As one can observe on figure 6 and 14 above, almost all search advertising revenues come from them and so, the company is heavily reliant on its growth, especially in market share and number of searches, in order to, itself, grow. Even though Google has the supremacy, the most recent technology that is shaking up internet in general, and search advertising in particular, is Microsoft's Bing integration of the AI-driven ChatGPT. This new feature will definitely shake the search engine dynamics and Perion can capitalize on its agreement with Microsoft Bing and grow together. This addition creates a massive selling point for Bing, thus, Perion can find it easier to get new clients to switch to this search engine, driving up faster growth.

Another big opportunity for Perion is to leverage its innovative technologies and solutions to enhance ad targeting and user engagement. The company is keen in using machine learning and AI to optimize the whole ad journey and has acquired several AI companies throughout the years to help them in obtaining that competitive advantage. Also, one key aspect of the potential growth in this segment is indeed the company's new CEO, which was the previous general manager of the search advertising business unit of Perion. He has significantly modernized and enhanced the search segment, driving up revenue growth (figure 33) and cash generation, while forging a strong and collaborative relationship with Microsoft. So, if there is anyone that knows how to find its way in the search advertising landscape, it is him.

In terms of the challenges and risks the company will face in the future with regards to the search advertising segment of the business, one that stands out is, as previously analyzed, the trend towards shifting internet usage from desktop to mobile devices. Perion faces the challenge of rapidly and successfully implement adequate revenue-generating models for mobile platforms to respond to such decline in desktop usage, especially given that currently, most of its services are still not widely spread on mobile platforms.

Other big challenge the company has to face is making sure that the advertisers' content is visible. Some of Perion offerings can be considered by some third parties, including anti-virus software providers, as constituting "malware" or "spamming". As a result, the company's or publishers' software is occasionally blocked by utilities designed to detect such practices. The growing use of ad blockers and privacy concerns limit the visibility of ads and the collection of user data, hindering personalized targeting and potentially impacting ad performance.

In regard to the risks associated with Perion's search advertising segment and market, the one that is the most dangerous for the company is undoubtedly the termination, not renewal, or amendment (on terms not favorable to the company) of the agreement with Microsoft Bing. If that were to happen, Perion would experience a significant decrease in its search advertising revenue and would be forced to seek alternative search providers at likely less competitive terms. This over reliance on the Microsoft Bing agreement can be dangerous for the company, especially since the large search engine companies, including Google, Microsoft, Yahoo, and others have become increasingly aggressive in their own search service offerings. If Microsoft decides to engage in more direct relationships with publishers, the agreement in place with Perion might become threatened. This is why it is imperative that the technological advantage of Perion's platform, products and other services is maintained in order to attract more publishers to adopt Bing as their default search engine.

Valuation

Cost & Tax Structure

Having analyzed Perion's revenues per segment and how we forecast them for the future, it is essential to fully understand the costs and expenses that the company is used to face on a consistent basis, how they connect to the activities of the company and how we believe they will evolve in the future. It is important to note that we used the % of revenues to forecast all the costs below besides Depreciation & Amortization. We believe it is the most consistent approach given our analysis on last 5 years' costs. The representation of our numbers is demonstrated below all explanations, in figure 38.

First of all, we have what the company considers as "cost of revenue". Even though we believe the company will make more strategic acquisitions, which will increase the cost of revenue in absolute terms, with higher revenues forecasted, these costs become proportionally lower with time, as demonstrated by the decrease in the last 3 years. Thus, we assume the downward trend as % of revenues and lock the value at 4% from 2026.

Analyzing now the Research & Development Expense, as the name entails, consist of costs related to the development of Perion's products, in this case, new technologies and software. Retention expenses related to M&A transactions are also accounted. For our forecast we decided to assume the value of % of revenues for the remaining years to be the average of the last 5, which is a period with multiple acquisitions, being consistent with our belief that M&A activity will remain high in the next years.

Regarding Selling & Marketing Expense, consist of salaries and other personnel-related expenses related to sales and marketing. For the years to come, and given the decreasing trend of % of revenues, we considered it and locked the value at 8% from 2024 onwards.

The Traffic Acquisition Costs and Media Buy consist primarily of payments to publishers and developers who distribute Perion's search properties alongside with their products. In addition, it includes costs of advertising inventory incurred to deliver ads. Since 2024 we decided to assume as margin the average from the last 5 years given the lack of a clear trend. Even though IHub efficiencies can help in reducing this media margin even further, the need to distribute the company's products and its presumable acquisitions in the future is the reason for this assumption.

Display and Search Advertising	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Cost of Revenue	23,757	25,520	22,477	25,197	30,404	40,049	38,870	47,504	47,635	54,530	60,229	67,325	72,378	78,729
% of revenue	9.4%	9.8%	6.9%	5.3%	4.7%	5.3%	4.5%	4.5%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Research & Development Expense	18,884	22,585	30,880	35,348	34,424	36,365	66,137	80,829	91,182	104,380	115,289	128,873	138,544	150,701
% of revenue	7.5%	8.6%	9.4%	7.4%	5.4%	4.8%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%
Selling & Marketing Expense	38,918	34,736	39,085	53,209	56,014	64,201	69,102	84,452	95,270	109,059	120,458	134,651	144,755	157,458
% of revenue	15.4%	13.3%	11.9%	11.1%	8.7%	8.5%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
General & Administrative Expense	16,450	14,999	15,819	20,933	23,813	49,410	43,463	53,118	59,922	68,595	75,764	84,691	91,046	99,036
% of revenue	6.5%	5.7%	4.8%	4.4%	3.7%	6.5%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Traffic acquisition costs and media buy	130,426	135,891	197,626	288,018	372,601	429,743	487,492	595,784	672,099	769,380	849,791	949,918	1,021,201	1,110,814
% of revenue	51.6%	52.0%	60.2%	60.2%	58.2%	56.8%	56.4%	56.4%	56.4%	56.4%	56.4%	56.4%	56.4%	56.4%

Figure 38- Forecast for costs and their drivers

2023	$	12,255
2024		11,718
2025		8,283
2026		6,834
2027		6,590
Thereafter		5,984

Figure 39- Perion's amortization estimation
Source: Perion's report

For the Depreciation & Amortization, it consists of depreciation of PP&E and the amortization of Perion's intangible assets because of its acquisitions. The company discloses in its annual report which part is related to PP&E and which part is related to intangible assets. It also discloses the amortization of Intangible assets for the next 5 years (figure 39). Given that matter, we decided to take a different approach than the one we used for the other costs, forecasting the depreciation and amortization separately, and then adding them. We forecast the depreciation related to PP&E as the average from the last 5 years (PP&E costs only). For the Amortization forecast we use the values given by the company until 2025 and then average the last 4 years in order to take into account amortization levels on acquisition years.

In regard to tax considerations, there is a remark to be done. The statutory tax rate in Israel is 23%, however, Perion has a "Preferred Enterprises" status and so, there are important tax adjustments made (benefits), proportional to the result before taxes. Consequently, to estimate these core tax adjustments, we assumed them to be around 8% of the core result before taxes, the average of the last 5 years.

Bearish Scenario

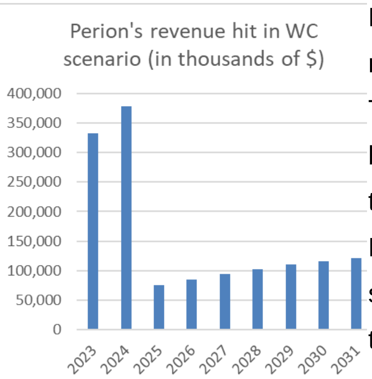

Figure 40- Perion's revenue hit in Worse Case Scenario

Regarding the Worse Case Scenario, the main assumption is that Microsoft Bing decides not to renew the agreement it currently has in place with Perion, which ends at the end of the 2024 year. To forecast the search advertising revenues, we decided to keep our assumptions made in our bear case with the particularity of, in 2025, only applying the forecasted growth of revenues over the share of revenues not coming from Microsoft Bing in 2024 (last year of the agreement). Presumably, the revenues coming from the search advertisement segment take a big hit as shown in figure 40, decreasing from $378,031 in 2024 to $75,578 in 2025 (in thousands). This translates in a CAGR of -11.81% between 2023 and 2031. In this scenario, and since Perion would have to find new solutions, we consider that the Selling & Marketing Expense and the Traffic acquisition costs and media buy increase at higher levels than our base case, when taking into account the % of revenues as the driver, with costs in 2025 maintaining the same values as in 2024, and the % of revenues from 2026 onwards to be the rolling average of the last 5 years. All things considered, this worse scenario provides a valuation to Perion Network of $11.44 per share, that would change our recommendation to SELL. This shows perhaps the overreliance on Microsoft's agreement and the potential risk that Perion might have to face in the future.

Sensitivity Analysis

Sensitivity of Share Price						
		WACC (Discount Rate)				
		12.12%	12.62%	13.12%	13.62%	14.12%
Growth Rate	1.0%	44.90	42.56	40.43	38.47	36.66
	1.5%	46.45	43.95	41.67	39.59	37.67
	2.0%	48.15	45.47	43.03	40.80	38.76
	2.5%	50.03	47.13	44.51	42.13	39.96
	3.0%	52.12	48.97	46.14	43.58	41.25

Figure 41- Sensitivity Analysis of Share Price

As expected, our model might be subject to some input risk. Given such, we decided to perform a sensitivity analysis with 2 of the most critical inputs, WACC and Perpetuity Growth Rate, and see how the Share Price and Enterprise Value would change to small changes using a delta of 0.5%. This sensitivity analysis is important to test the robustness of our model, and, as our findings show in figure 41, all the combination computed would keep the "BUY" recommendation, with a minimum share price of $36.66 and a maximum price of $52.12. In figure 42 we can observe the changes in enterprise value that derive from the changes in our 2 inputs mentioned above, with the EV ranging from $1,903,254 to $2,636,153.

Sensitivity of Entreprise Value (EV)						
		WACC (Discount Rate)				
		12.12%	12.62%	13.12%	13.62%	14.12%
Growth Rate	1.0%	2,293,870	2,183,262	2,082,003	1,988,981	1,903,254
	1.5%	2,367,358	2,248,950	2,140,952	2,042,077	1,951,239
	2.0%	2,448,106	2,320,821	2,205,201	2,099,741	2,003,182
	2.5%	2,537,244	2,399,792	2,275,499	2,162,589	2,059,594
	3.0%	2,636,153	2,486,969	2,352,740	2,231,353	2,121,077

Figure 42- Sensitivity Analysis of Entreprise Value (EV)

NOVA SCHOOL OF BUSINESS & ECONOMICS

MASTER IN FINANCE

PERION NETWORK

COMPANY REPORT

DIGITAL ADVERTISING

20TH DECEMBER 2023

NUNO AFONSO & TIAGO ALMEIDA

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Finding Growth Opportunities:

Through Innovation and Diversification

- PERI's M&A activity fuels growth and diversification through all channels, with historical success expected to perpetuate in the next years.
- CTV revs in 3Q23 rose 39% y/y to $7.9m fueled by live sports events. Retail media increased 113% y/y to $13m driven by outside-own-website services revenue.
- PERI's biggest client is Microsoft. For the previous five years, the MSFT connection has been under the purview of PERI's new CEO. With ChatGPT's beneficial influence on Bing's adoption, the new CEO of PERI hopes to expand the company's MSFT business into Europe. Until now, the majority of PERI's business dealings with Microsoft have taken place in the US.
- In terms of margins, Perion are at the top in the AdTech industry. These figures are driven by generative AI that creates competitive advantages and cost-cutting processes.
- Every quarter, SORT draws additional advertising campaigns, and PERI is searching for methods to grow SORT into new markets, platforms, and business models.
- In terms of BS, Perion sits in more than enough cash, having no debt. Other relevant aspect, is its growing productivity.
- Considering our analysis and price target of 43.03 we issue a BUY recommendation.

Company description

Perion Network is an AdTech company that specializes and innovates in digital advertising solutions. Its mission revolves around empowering brands, agencies and publishers to unlock lucrative growth opportunities in all stages of the advertising funnel and client journey.

Recommendation:	**BUY**
Price Target FY24:	**43.03 $**
Expected Gain	*55.73 %*
Price (as of 20-Dec-23)	**27.63 $**

Bloomberg

52-week range ($)	24.10 - 42.75
Market Cap ($bn)	1.38
Outstanding Shares	47,392,072

Source: Equity Research

Source: Bloomberg

(Values in $ millions)	2022	2023E	2024E
Revenues	640.256	756.460	863.773
Display Advertising	360.69	423.906	485.742
Search Advertising	279.566	332.554	378.031
EBITDA	123.000	136.692	158.710
Net Profit	98.771	106.124	125.111
P/E	11.5	12.75	10.81
ROIC	23.02%	25.53%	31.62%

Source: Equity Research

THIS REPORT WAS PREPARED EXCLUSIVELY FOR ACADEMIC PURPOSES BY NUNO AFONSO AND TIAGO ALMEIDA, MASTER IN FINANCE STUDENTS OF THE NOVA SCHOOL OF BUSINESS AND ECONOMICS. THE REPORT WAS SUPERVISED BY A NOVA SBE FACULTY MEMBER, ACTING IN A MERE ACADEMIC CAPACITY, WHO REVIEWED THE VALUATION METHODOLOGY AND THE FINANCIAL MODEL. (PLEASE REFER TO THE DISCLOSURES AND DISCLAIMERS AT END OF THE DOCUMENT)

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Company Overview

Company Description and History

Figure 1- Perion's logo

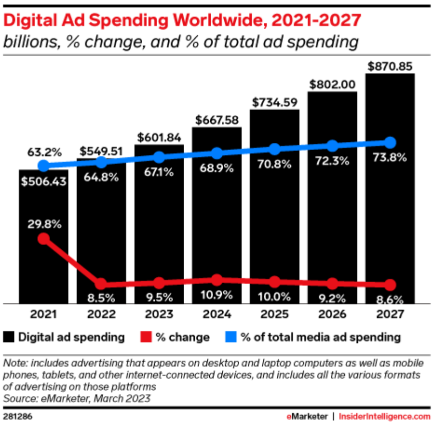

Figure 2-Digital Ad Spending worldwide until 2027
Source: eMarketer

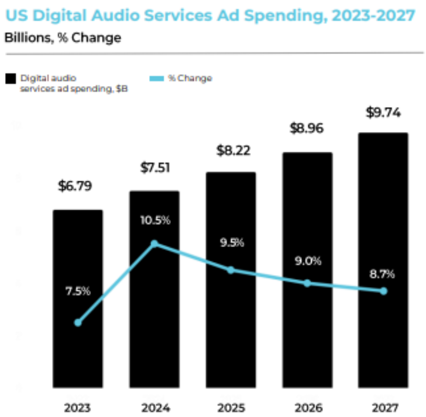

Figure 3-Digital Audio Services Ad Spending worldwide until 2027
Source: eMarketer

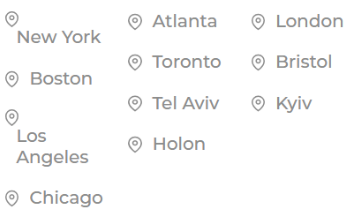

Figure 4- Perion's offices across the globe
Source: Perion's Website

Perion Network is a global technology company that specializes and innovates in digital advertising solutions. Its mission revolves around empowering brands, agencies and publishers to unlock lucrative growth opportunities, especially by maximizing their online presence and, thus, increase revenues. To make this happen, Perion provides strategic, data-driven advertising and engagement solutions, using AI and machine learning, which allow businesses to efficiently target their audiences. The Company operates across the three main pillars of digital advertising: ad search, social media and display/video/CTV; which represents an addressable market of $602 billion in 2023, with an expected growth of $871 billion by 2027, according to eMarketer (figure 2). Moreover, it has entered the $6.8 billion U.S. digital audio market, which is expected to grow to $9.7 billion by 2027, according to the same source (figure 3). The company is known for developing own innovative and cutting-edge software platforms and technologies, such as iHUB, SORT, and most recently, WAVE.

Through its diversified portfolio of companies and brands, Perion can strategically position itself in every direction when it comes to delivering high-impact advertising solutions, regardless of how branded and e-commerce spending is evolving. This allowed Perion to be a trusted partner in the digital marketing landscape, growing in importance in these last few years and winning multiple awards for their platforms and innovative high-tech solutions. A pivotal differentiator for Perion is their "Capture and Convince" motto, leveraging AI and machine learning to analyze numerous content and advertising combinations, significantly enhancing engagement for new users. In fact, according to Perion, this new user loop has been shown to engage new users for an average of six minutes, a groundbreaking achievement in the industry, in an era where attention spans are rapidly declining to just a few seconds.

Even though headquartered in Holon, Israel, the company operates at a global scale, having offices in multiple cities observed in figure 4. Its revenues come mainly from North America and Europe as shown in figure 5. Therefore, their main market is the United States, and it is the source of revenues from where they expect to keep operating and grow the most. As observed in figure 6, the company is heavily reliant on its search services agreement with Microsoft Bing, accounting for 37% and 35% of its revenue, in 2021 and 2022, respectively. This agreement, initiated in 2010 and renewed three years ago until the end of 2024, saw Perion's search advertising business unit, CodeFuel, honored by Microsoft Advertising as the "Global Supply Partner of the Year" in 2022.

	2022	
	Revenue from Search	Revenue from Display
North America	**240,427**	**321,014**
in %	*86%*	*89%*
Europe	**36,344**	**36,069**
in %	*13%*	*10%*
Other	**2,796**	**3,607**
in %	*1%*	*1%*
Total	**279,566**	**360,690**
in %	*100%*	*100%*

Figure 5- Revenue breakdown by geography

	2018	2019	2020	2021	2022
Bing	45%	63%	51%	37%	35%
Others	55%	37%	49%	63%	65%
Total	100%	100%	100%	100%	100%

Figure 6- Revenue breakdown by customer

Figure 7- Perion's Market Cap increase during Doron Gerstel's guidance
Source: MacroTrends

The company was founded in 1999 by two Israeli cousins, Yaron and Ofer Adler, under the name IncrediMail. As the name entails, at first, the company's main focus was email-related software and solutions. Until 2010, the company was managed by the two original founders, when the former CEO of American Greetings Interactive, Josef Mandelbaum, was appointed the new CEO. In 2011, the company changed its name to Perion, the Hebrew word for productivity. In 2017, the CEO stepped down, being replaced by Doron Gerstel, which, in short time, led a company turnaround that saw a strengthened financial position, reducing the previous debt by 48%, from $77.7 million in 2017 to $40.5 million in 2018, and reducing Perion's operating expenses by 21% from $108.4 million in 2017 to $86.0 million in 2018. Since then, Perion's market cap increased twelvefold under his guidance, increasing from $120 million to $1.67 billion, as seen in figure 7. Recently, the company underwent through a CEO transition period, with Mr. Gerstel stepping down from the executive team and remaining in the board of directors, and Tal Jacobsen, former general manager of Perion's search advertising unit, being promoted to CEO on the 1st of August of 2023.

M&A Activity

Perion's tremendous growth and the shift from email-related solutions to the Adtech space was a progressive journey, bolstered by a series of strategic acquisitions over the years. By doing so, the company has now many subsidiaries, which are 100% owned directly or indirectly by Perion. This structure affords them the liberty to innovate across diverse channels within the realms of digital advertising while remaining shielded from allocation shifts and specific industry constraints. Tal Jacobsen, the current CEO, has already stated that the company will continue to look for strategic acquisitions that can accelerate its growth and diversify its activity. The strong net cash position observed in figure 8 allows them to explore these opportunities. Below, one can find the timeline of Perion's acquisitions throughout the years and how they impacted the activity of the company:

2011- In August, while operating as IncrediMail, Perion acquired Smilebox for $40 million. According to the CEO at the time, the acquisition was meant to diversify the company's product portfolio and increase its premium subscription base. One year later, he said that the acquisition exceeded expectations, with Smilebox's product line generating revenues of $15 million, up from the $11.5 the previous year due to revenue and cost synergies.

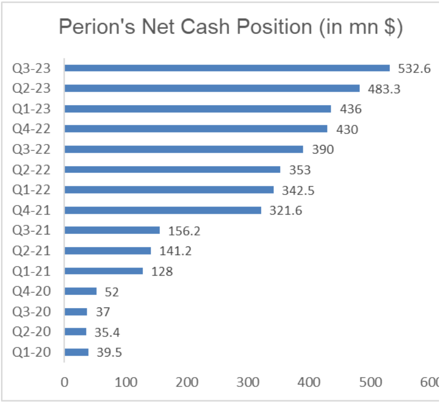

Figure 8- Perion's net cash position
Source: Perion's website

2012- In November, Perion purchased Israel-based SweetPacks (or SweetIM) for approximately $43 million. Perion's CEO at the time stated this acquisition would improve the company's back-end systems, accelerating growth and increasing margins and revenues. One year later, this indeed materialized, with results beating expectations and Perion reporting a profit of $2.9 million up from $370,000 in 2012.

2014- In January, Perion acquired a unit of Conduit's business, ClientConnect, which included a monetization and distribution platform for publishers and developers. This was an all-stock transaction valued at $660 million. This move broadened investments in mobile space and data analytics, thus further diversifying revenue streams. In just one quarter after the integration, revenues were 9% higher than previous combined revenue. In June of the same year, Perion acquired Grow Mobile, a mobile advertising management platform for approximately $42 million. The reasoning behind this acquisition was the acceleration of the company's position as a leader in the management of mobile advertising campaigns. The CEO at the time, stated that Perion was already strong on Desktop, but their main focus now was Mobile.

2015- In February, the company acquired MakeMeReach, a French social advertising technology company for around $15 million. This acquisition expanded Perion's capabilities in the social media advertising space and opened the gates to more business opportunities in Europe. Since then, the subsidiary became partner of Facebook, Snapchat, Twitter and Google, contributing to Perion's growth. In December, the firm acquired Undertone for $180 million. This merger helped Perion broaden its digital advertising offerings, especially in the mobile space. This propelled Perion even higher, solidifying its position as a leader in creating impactful advertising solutions. At the day of the announcement, Perion's shares soared by more than 10%.

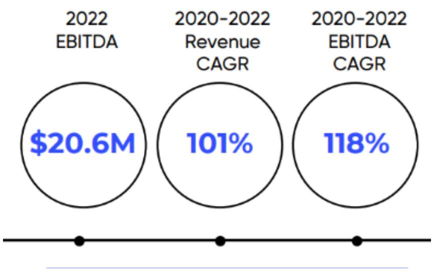

Figure 9- Vidazoo's Financial Performance
Source: Perion's Q4 2022 presentation

2019- In March, under a new CEO, Perion acquired for $3.75 million Ukraine-based AI startup Captain Growth. This deal complemented Undertone, which began using Captain Growth's AI capabilities.

2020- In January, the company acquired Content IQ, a New York-based startup that specialized in tracking and analytics tools without cookies by $73 million. This acquisition filled a strategic focus of Perion in the market, enhancing the company's content monetization capabilities and bringing synergies. In July, Perion bought the assets of a rapidly growing digital publisher-focused company named Pub Ocean for $22 million. The main purpose of the acquisition were the synergies between Content IQ and the company, enhancing profitability, growth and building a "new media supply chain". One year later, in the Q4 2021, the

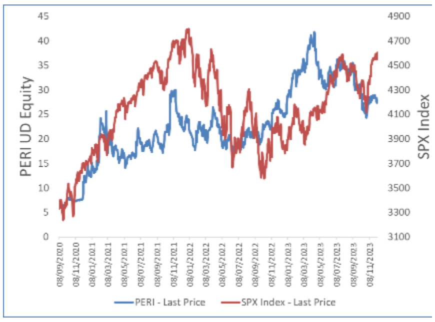

Figure 10- Perion's share price and its comparison with the SPX Index

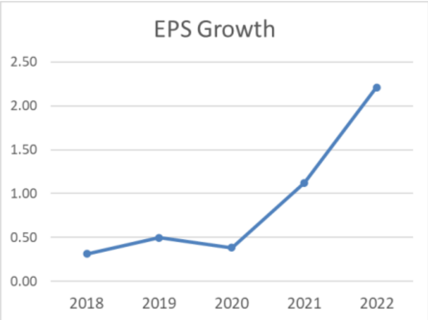

Figure 11- Perion's EPS growth in the last 5 years

In thousands of USD ($)	2018	2019	2020	2021	2022
Revenue					
Consensus Estimate	255.0	259.3	321.4	465.5	634.7
Comparable Actual	252.8	261.5	328.1	478.5	640.3
Revenue Surprise in %	*-0.8*	*0.8*	*2.1*	*2.8*	*0.9*
Earnings Per Share (EPS)					
Consensus Estimate	—	0.59	0.80	1.43	2.30
Comparable Actual	0.65	0.83	0.91	1.57	2.06
EPS Surprise in %	—	*40.0*	*13.3*	*9.5*	*-10.3*
EBIT					
Consensus Estimate	12.9	16.6	9.9	42.3	104.4
Comparable Actual	19.8	22.7	12.3	59.7	109.2
EBIT Surprise in %	*53.8*	*36.6*	*24.3*	*41.2*	*4.5*
EBITDA					
Consensus Estimate	22.3	29.1	32.0	64.5	131.0
Comparable Actual	29.6	32.4	32.8	69.6	132.4
EBITDA Surprise in %	*32.5*	*11.3*	*2.5*	*7.8*	*1.0*
Gross Margin %					
Consensus Estimate	90.40	89.93	69.08	59.55	88.30
Comparable Actual	90.6	90.2	93.1	94.7	95.3
Gross Margin Surprise in %	*0.2*	*0.3*	*34.8*	*59.1*	*7.9*
Net Income					
Consensus Estimate	—	15.5	13.3	54.3	112.3
Comparable Actual	17.8	21.6	26.6	60.0	119.8
Net Income Surprise in %	—	*39.3*	*99.5*	*10.4*	*6.7*

Figure 12- Comparison between Perion's estimates and reported numbers
Source: Bloomberg

company reached record revenues, growing 34% from the Q4 2020, and increased profitability, growing 93% YoY when accounting for EBITDA/Rev. Both acquisitions helped Perion in this regard, as acknowledged by its CEO.

2021- In October, the firm acquired Vidazoo an Israeli video technology company. The deal was made for $93.5 million. The purpose of this was to generate incremental revenues through its set of video products, exploring the video monetization space further. As seen in figure 9 above, boosted by the exposure of all Perion's assets to Vidazoo, this made the subsidiary to grow tremendously. Also, in 2022, Perion's video revenue increased by 129% YoY.

Stock and Ownership Structure

Perion Network, at the time Incredimail, launched its Initial Public Offering (IPO) in January 2006 on the NASDAQ, under the ticker MAIL. It raised $18.75 million in an issue of 2.5 million shares at $7.5 each. Since 2007, the company's shares are also traded in the Tel Aviv Stock Exchange. In 2018, the company had a reverse stock split at the ratio of 3:1. Currently, 11th of December 2023, the company has 47,392,072 shares outstanding, with a price of $27.63 Historically, the price has ranged between $2.145 and $44.1. Since January 31, 2006, Perion Network's market cap has soared from $79.80M to $1.38B, an increase of 1,629.32%. That is a CAGR of 16.55%. Analyzing the last 5 years, the stock price has soared, increasing approximately 935% from $2.67 to $27.63. This is a reflection of the recurring growth in net income during the time period, which can also be observed by the EPS increase (figure 11), from 0.31 to 2.21, a 48% CAGR. Moreover, as shown in figure 12, the fact that Perion keeps beating the estimates is a positive sign for investors, and that usually boosts Perion's stock price after releasing earnings. Also, the company does not pay dividends.

Regarding Perion Network's ownership, the company is heavily dominated by institutional investors, around 64%, while individual stakeholders only own around 36% of the total shares outstanding. However, no single individual institution has a major position in the company as one can acknowledge in figure 13, where the breakdown of the top 10 shareholders is illustrated.

Business Model

Perion has suffered several transformations and business model shifts over the years, as one can observe in the M&A Activity disclosed above. Today, its revenue generation model is markedly different from a decade ago and is poised for further evolution. One proof of this is the recent announcement on its Q3 earnings presentation, with Perion entering the digital audio market with its generative AI-powered dynamic audio solution, WAVE. As of today, the company

Stockholder	Stake
Harel Mutual Funds Ltd.	6.44%
Clal Pension & Provident Funds Ltd.	5.74%
Migdal Insurance Co. Ltd.	4.42%
Acadian Asset Management LLC	4.13%
Private Capital Management LLC	3.11%
Vanguard Group Inc	3.11%
Arrowstreet Capital LP	2.94%
Renaissance Technologies LLC	2.71%
Menora Mivtachim Insurance Ltd.	2.58%
Victory Capital Management, Inc	2.37%

Figure 13- Perion's top 10 shareholders
Source: Yahoo Finance

Revenue Breakdown by segment					
In Millions of USD ($)	2018	2019	2020	2021	2022
Revenue:					
Display Advertising	125,977	87,863	148,698	265,323	360,690
in% of Total Revenues	**49.8%**	**33.6%**	**45.3%**	**55.4%**	**56.3%**
growth (in %)		-30.3%	69.2%	78.4%	35.9%
Search Advertising	126,868	173,587	179,365	213,175	279,566
in% of Total Revenues	**50.2%**	**66.4%**	**54.7%**	**44.6%**	**43.7%**
growth (in %)		36.8%	3.3%	18.8%	31.1%
Total Revenue	252,845	261,450	328,063	478,498	640,256

Figure 14- Revenue Breakdown by segment

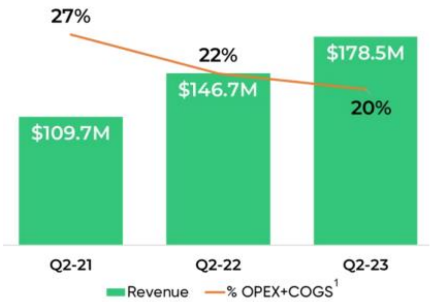

Figure 15- Cost efficiencies boosted by iHub
Source: Perion Q3 presentation

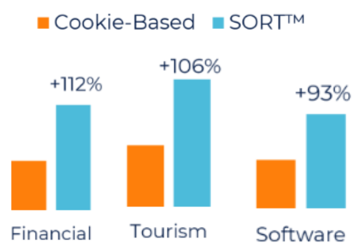

Figure 16- Lift in CTR by comparing SORT and Cookie-based targeting
Source: Perion's Website

separates its business in two big segments: Search Advertising and Display Advertising, which account for 44% and 56% of the company's revenues, respectively (figure 14). Embedded within the Adtech and digital advertising space, these segments develop an array of sophisticated technology solutions, empowering advertisers and publishers to optimize their online advertising campaigns. Perion's technologic advancements and innovations, alongside acquisitions in these last few years, have allowed them to operate across the main pillars of digital advertising, providing diversification of its revenue streams.

At the core of Perion's operations stands the proprietary Intelligent Hub (iHUB), a pivotal tool which connects the supply and demand sides of the advertising marketplace. The platform acts as a shared infrastructure resource consisting of an ad-server and a central real-time bidding engine. As shown in figure 15, this allows the firm to eliminate excessive expenses. The iHUB processes billions of signals, connecting advertisers and publishers in a better way, increasing customer value, and improving their return on investment (ROI). Other important tool that Perion has to outperform the market and have a competitive advantage for the years to come is the SORT (Strategic Optimization of Relevant Traits) technology. This solution, covered by a provisional patent, eliminates the need for cookies and, according to the company, can outperform first-party cookies, driving results up to 2x higher. In fact, according to an internal study conducted by Perion, comparing the performance of SORT and cookie-based targeting, when adopting the cookieless solution, the clickthrough rate in sectors as Financial, Tourism and Software can improve by 112%, 106% and 93%, respectively (figure 16). Also, Google plans to end third-party cookies in 2024, postponing the date to the end of the year, presumably because they were unable to develop a satisfactory replacement solution. This makes SORT, a catalyst of change, placing Perion at the forefront of innovation. The technology uses proprietary machine learning to predict consumer mindset in real-time based solely on cookieless data signals, without browser & device limitations cookie-based approaches face. It does not collect any Personally Identifiable Information (PII), adhering to all industry regulations and increasing privacy on campaigns. This is of extreme importance to consumers, as attested by a 2021 study, conducted by Lucid, on consumers' sentiment towards ad targeting & privacy. For instance, 53% of consumers favor brands who protect their privacy and 74% would like ads to have a clearly visible seal that can guarantee that the brand is not tracking them. Perion took a proactive approach to address these concerns by putting a privacy protection shield logo on all campaigns using the technology, therefore, consumers know that they are not being tracked.

Display Advertising Revenue ("Advertising") **-** one source of revenues for the company is via the delivery of high impact ad formats through the different channels where it is positioned– display, social media and video/CTV. Also, the company is entering the digital audio market soon. In a time where attention is difficult to capture, brands and advertisers are in a war to get people to engage with their products. These advertising solutions are designed to capture consumer attention and drive engagement across a vast portfolio of websites and mobile apps. Creativity is the key here and Perion tries to explore unconventional approaches, transforming awareness into performance. Besides, there is a strong focus on reaching the right audience, and Perion, through AI and machine learning, optimizes consumer groups, especially by predicting how they will respond to its High Impact Advertising, at scale. In addition, the company generates revenue from the use of its platform in online media channels which connects video and display advertisements derived from advertising partners to advertising inventory available within its publisher's network. Moreover, the firm also leverages data collected from user interactions and behaviors to offer data monetization services. They provide data insights and analytics to businesses, which allow them to track performance of their campaigns.

Figure 17- Microsoft Bing logo

Search Advertising Revenue ("Search Monetization") - the other source of revenue for the company is through service agreements with its search partners. Search revenue is generated primarily from monthly transaction volume-based fees earned by the company for making its applications available to online publishers and app developers on a revenue share basis relative to the revenue generated by the search partners. As previously said, almost all revenue from search advertising comes from Perion's partnership with Microsoft Bing. That being the case, the success of Bing's innovations, especially through the addition of ChatGPT to their search offering, will determine Perion's growth in this segment. The ability of Bing to increase their revenue per search, is driven by the supply of search advertising inventory relative to demand, as well as internal pricing dynamics. The higher the market share and the average daily searches, the higher the growth, for both Bing and Perion. The company deploys advanced AI, neural networks, and machine learning to optimize yield for its publishers and transform search into revenue.

Figure 18- ChatGPT logo

Activity Ratios

	2018	2019	2020	2021	2022
Receivables	55,557	49,098	81,221	115,361	160,488
Sales	252,845	261,450	328,063	478,498	640,256
Average Collection Period	**80**	**69**	**90**	**88**	**91**
Payables	38,208	47,681	72,498	107,730	155,854
Cost of Sales	193,101	196,147	259,188	366,424	459,019
Average Payable Period	**72**	**89**	**102**	**107**	**124**
Cash Conversion Cycle (CCC)	**8**	**-20**	**-12**	**-19**	**-32**

Figure 19- Activity Ratios in the last 5 years

Financial Analysis

To get a grasp of the company's position in terms of profitability, capital structure and value creation, we performed a series of ratios that are useful to assess the company's situation. However, these metrics alone are meaningless if the industry and company's specific conditions are not considered, something we

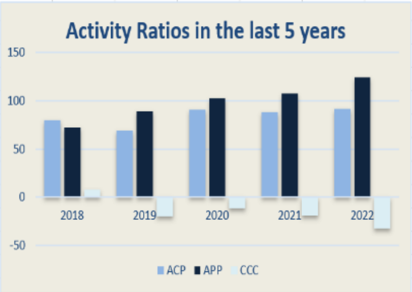

Figure 20- Evolution of ACP, APP and CCC in the last 5 years

Liquidity Ratios

	2018	2019	2020	2021	2022
Current Assets	103,893	115,107	147,359	446,171	603,458
Current Liabilities	77,114	83,308	120,113	193,707	234,608
Current Ratio	**1.35**	**1.38**	**1.23**	**2.30**	**2.57**
Current Assets - Inventories	103,893	115,107	147,359	446,171	603,458
Current Liabilities	77,114	83,308	120,113	193,707	234,608
Quick Ratio	**1.35**	**1.38**	**1.23**	**2.30**	**2.57**
Cash and Equivalents	39,109	38,389	47,656	104,446	176,226
Current Liabilities	77,114	83,308	120,113	193,707	234,608
Cash Ratio	**0.51**	**0.46**	**0.40**	**0.54**	**0.75**
Net Working capital	**26,779**	**31,799**	**27,246**	**252,464**	**368,850**

Figure 21- Liquidity Ratios

Capital Structure and Leverage Ratios

	2018	2019	2020	2021	2022
Assets	256,446	283,777	358,681	713,232	870,218
Equity	148,781	165,182	184,122	466,960	583,134
Asset to Equity Ratio	**1.72**	**1.72**	**1.95**	**1.53**	**1.49**
Debt	32,726	40,696	30,545	13,389	11,480
Equity	148,781	165,182	184,122	466,960	583,134
Debt to Equity Ratio (D/E)	**0.22**	**0.25**	**0.17**	**0.03**	**0.02**
Equity	148,781	165,182	184,122	466,960	583,134
Liabilities	107,665	118,595	174,559	246,272	287,084
Solvency Ratio	**1.38**	**1.39**	**1.05**	**1.90**	**2.03**
Equity	148,781	165,182	184,122	466,960	583,134
Assets	256,446	283,777	358,681	713,232	870,218
Financial Autonomy Ratio	**0.58**	**0.58**	**0.51**	**0.65**	**0.67**
Debt	32,726	40,696	30,545	13,389	11,480
Debt + Equity	181,507	205,878	214,667	480,349	594,614
Gearing Ratio	**0.18**	**0.20**	**0.14**	**0.03**	**0.02**

Figure 22- Capital Structure and Leverage Ratios

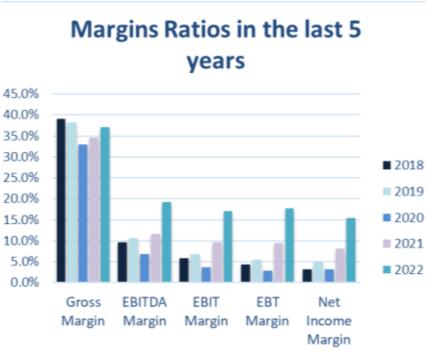

Figure 23- Margin Ratios Evolution

also try to address in the analysis done below. Also, one note on what we consider Perion's cost of sales. Even though one of the company's cost captions translates to "Cost of Revenue", we assumed the cost of sales to be the sum of that caption with "Selling and Marketing Expenses", and "Traffic acquisition costs and media buy" since we believe they are the more direct costs related to sales.

Regarding the activity ratios, they measure the efficiency of a business in using and managing its resources to generate maximum possible revenue. Due to the nature of Perion's business, there are no inventories and, on figure 19 and 20, the evolution of these ratios is disclosed. As one can observe, the company has been having a negative cash conversion cycle, meaning that suppliers are financing the activity of the company. This makes sense given the nature of the business in the digital advertising landscape.

In terms of the liquidity ratios, they are used to determine a company's ability to pay its short-term liabilities. As we can see in figure 21, the company has been improving its position, with its Current Ratio being 2.57 in 2022, meaning that the business has 2.57 times more current assets than liabilities to covers its debts. Hence, the rule of minimum short term financial equilibrium has been verified for the last 5 years, hinging on the firm's ability of executing all of its current assets, particularly the short-term deposits and receivables. Also, its cash ratio has also been improving, growing from 0.51 to 0.75 between 2018 and 2022.

Analyzing Perion's debt situation, we can check by the balance sheet that it does not have debt in a direct way, having fully repaid its long-term debt in 2019. Nowadays, the company only has lease liabilities (short and long term), which are mainly for the company's offices in Israel and the United States. We consider them as debt, since it is, for all intents and purposes, a way the company has to finance itself. So, looking at Perion's capital structure and leverage ratios, we can see in its evolution in figure 22 that the company has a strong healthy position in this regard. Its debt-to-equity ratio (D/E) shows how much debt the company has compared to its assets and the value in 2022 was 0.02. Its solvency and gearing ratios, also used to assess a company's financial health are also in what could be considered solid levels, with 2.03 and 0.02 respectively.

About profitability and value creation, multiple margins were calculated, which helped us in assessing how well the company is and will be able to make profits from its operations. Looking at the margin's ratios in the last 5 years (figure 23), it is clear that most margins have been increasing, with the exception of the gross margin, which has been maintaining values slightly above 35%. On the other hand, for instance, EBITDA margin was 9.7% in 2018, soaring to 19.2% in 2022, showing an improved profitability position. For a greater analysis on important

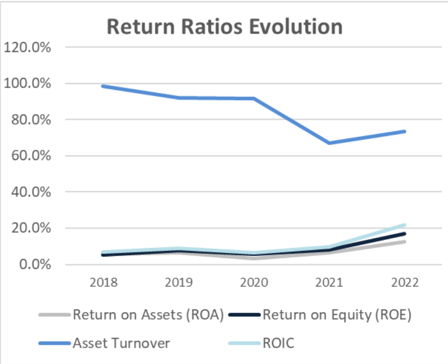

Figure 24- Return Ratios Evolution

return metrics as ROE and ROIC, we decomposed both to get a better grasp of what is driving growth. Regarding ROE, it has been improving with time, especially from 2021 to 2022, increasing from 8.2% to 16.9%, which is mostly explained by the boost in revenues. We also forecast this trend to continue in the future due to strong growth in revenues, compared to equity. As for ROIC, it is expected to be higher than the cost of capital, which would mean that the company would be investing in profitable projects, thus, creating value. This has been the case in the last 2 years, reaching 23% in 2022. Also, we expect ROIC to keep high values for the years to come, even though fierce competition might challenge this. The evolution of return ratios is shown in figure 24.

Market Overview and Industry Outlook

Macroeconomic and Geopolitical Outlook and Projections

Figure 25- IMF growth projections (in %) for the Euro Area and the US
Source: IMF website

Recognizing the intrinsic interconnectedness of all business sectors with the world's economy, it becomes paramount to acquire a macroeconomic overview of ongoing events, short and long-term projections, and the potential impact in the Adtech sector and Perion Network, specifically. Moreover, the escalating geopolitical tensions bring the necessity of the inclusion of these risks in economic projections. The company analysed faces a challenging situation due to its headquarters being located in Israel, amidst the looming Israel-Hamas war. All the following analysis was extensively done and incorporated with regards to our forecasts.

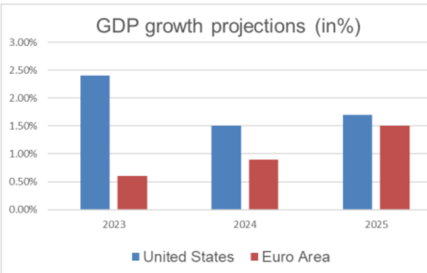

Figure 26- OECD growth projections
Source: OECD website

	December 2023				
	2022	2023	2024	2025	2026
Real GDP	3.4	0.6	0.8	1.5	1.5
HICP	8.4	5.4	2.7	2.1	1.9

Figure 27- ECB growth and HICP projections
Source: ECB website

Amidst these turbulent times, economic projections for the near future, as presented by the IMF, OECD, and ECB, maintain positivity, albeit at a notably slower pace than the past two decades. In figure 25, 26 and 27 one can observe next years' projections for the regions that matter the most to Perion, namely the United States and the Euro Area. Multiple factors contribute to this economic slowdown during these next years, in fact, according to a survey conducted by McKinsey, the most-cited risks to economic growth in 2024 include inflation, high interest rates, geopolitical instability/conflicts and slowdown in China's economic activity. The unprecedented rise in prices observed in the last few years, especially since the pandemic, pushed central banks from across the world to raise interest rates, which before that were near 0%, as it can be observed in figure 28. Consequently, borrowing costs are much higher now than they were a few years ago, and for some companies this could be troublesome if they were to indebt themselves at this time or had previous debt at a variable interest rate. For

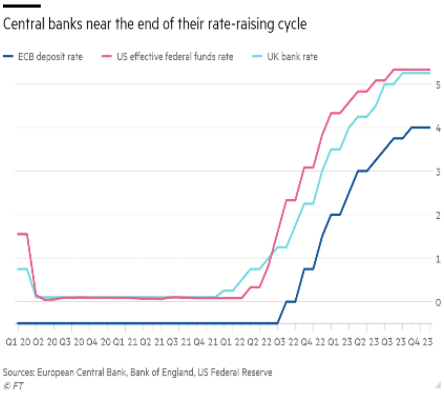

Figure 28- Interest Rate evolution in the US, UK and ECB
Source: Financial Times

Perion this is not the case, since the company holds almost no form of debt, having a strong cash position which allows them to have the flexibility to invest quickly in business opportunities (especially acquisitions). In fact, Perion is benefiting from this situation since it has excess cash allocated in high yield deposits. Regarding inflation, it has been declining, however, it has been showing some signs of stickiness, not dropping as much as anticipated with such a high level of interest rates. This has been impacting markets, fearing high levels of inflation, rates to hold for longer or even potential new hikes. Investors also fear a potential recession caused by these factors. The prevailing uncertainty and volatility are focal points today and are likely to persist in the near future, which can cause Perion's stock price to decrease. Nevertheless, the projections for the inflation rate are positive, suggesting a halt in interest rate hikes and subsequent decreases in the upcoming months and years. The OECD projects Headline inflation to fall from 3.9% this year to 2.8% in 2024 and to 2.2% in 2025.

All things considered, the forthcoming years' projections are shrouded in uncertainty. Economies face a great challenge with high interest rates and inflation. The resilience and responses of key players, especially the United States, Europe, and China, will dictate the outlook for the years to come.

Israel-Hamas conflict and its implications to Perion Network

Figure 29- Perion's stock price in the last quarter

The tensions between Israel and Palestine have been present for many years, having the situation escalated in these last few months, with Israel declaring war against Hamas on October 8, 2023. This situation has been impacting the markets, with many stocks tumbling and leaving investors concerned. For Israeli companies like Perion Network, the risks are (presumably) much higher and the markets also reflect that, with Perion's stock falling almost 22% in the last quarter, as seen in figure 29. Since its headquarters are located in Holon, Israel, the company faces potential challenges arising from this regional instability.

The perception and reputation of companies located in conflict zones usually face difficulties. Global perception, partnerships, client relations, and investor confidence could be influenced by the conflict. Regulatory and governmental changes are also possible since alterations in policies or regulations could be prompted, which could impact the company's operations and financial outlook. There may be restrictions to work with Israeli companies in the future, or companies might stay away from dealing with Israeli companies because of the conflict. It is also important to recall the analysis on Perion's revenue breakdown by geography in figure 5. Even though the company does not break the "Other" category by country, it does put a ceiling on Perion's business in Israel at 1%. Therefore, even though it is only a small portion of revenues, it may be endangered by the conflict.

For a company like Perion Network, headquartered in Israel, the implications of the Israel-Hamas conflict can be multi-faceted. However, the company looks to have strategies already implemented to navigate the challenges posed by regional instability, as the situation between Israel and Palestine has always been tense. One example of this is the fact that even Perion's servers are not based in Israel. Also, only 40% of the company's cash is currently held in Israel. Perion stated that it will lower its cash held in the country to 30% of total by the end of the year. With the majority of its business conducted in the U.S, the company anticipates minimal impact from the ongoing regional tensions. However, uncertainty reigns and the events from the next weeks/months might change this outlook.

Industry Outlook

Perion is part of the AdTech industry. AdTech is a group of B2B intermediary companies that operate between the buyers of digital advertising and the sellers of advertising units online in the "Open Internet". This group of small companies has a combined revenue of $5.5 billion and is expected to grow by 18% in 2022 and 29% by the end of this year. AdTech only operate on the "Open Internet" and does not include digital ads placed inside walled gardens such as AMZN, META, Google Search, YouTube, Roku and SNAP. As US consumers spread their attention across more screens, advertisers and brands, ad agencies must use increasingly sophisticated technology to re-aggregate audiences across millions of screens and websites to target their messages to the right consumers.

Behind most ad impressions in the programmatic ad ecosystem (i.e., AdTech) is a real-time bidding (RTB) auction that connects ad buyers with DSP software and publishers with SSP software. Each layer of the AdTech ecosystem must always interact seamlessly and at lightning speed to deliver value. Put another way, AdTech is the invisible back-end tech stack that determines which ad is delivered to each consumer in milliseconds as a web page loads. Large website owners (called "publishers") typically hire an SSP (sell-side platform) to sell their ad units in real time as a viewer loads a page. An SSP's software connects to dozens of DSPs (Demand Side Platforms) to automatically (i.e. programmatically) auction off their ad units to the highest bidder, and then load the winning ad in real time as the page becomes visible to the consumer.

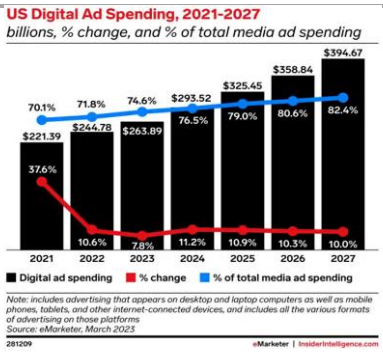

Figure 30-US Digital Ad Spending

As most public AdTech companies generate over 85% of their revenues from the US, we use a total addressable market (TAM) of US digital ad spend for AdTech companies. As of March 2023, eMarketer forecasted that US digital advertising would grow 8% to $263 billion in 2023, up $19 billion from $244 billion in 2022.

The TAM for public AdTech companies is huge, and the AdTech industry is tiny in comparison. US digital ad TAM growth of $19 billion in 2023 is 15 times greater than the combined AdTech TAM growth of approximately $1.2 billion in 2023. The relatively small size of AdTech compared to its rapidly growing TAM suggests many years of growth runway ahead. "A rising tide lifts all boats" is an apt characterization of AdTech for the foreseeable future.

Trends

SHARE SHIFT TO PROGRAMMATIC ADVERTISING

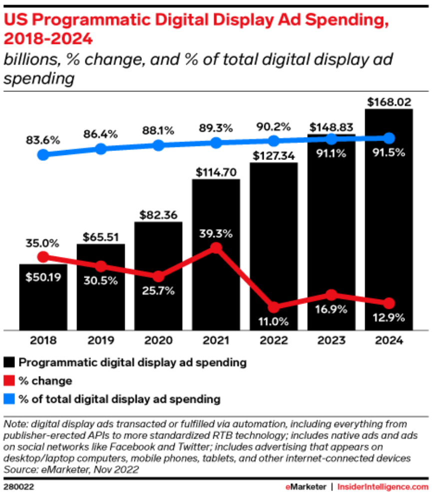

Figure 31-US Programmatic Digital Ad Spending

eMarketer forecasts that programmatic advertising will grow 16.9% in 2023, which is 2x faster than eMarketer's overall US digital advertising growth estimate of 7.8% in 2023.

Key drivers of programmatic ad adoption: a) because different audience segments are identified, a brand can tailor its message to that particular segment, while simultaneously sending differentiated and relevant messages to specific groups; b) programmatic advertising can include improved audience targeting, measurement and customization; c) brands pay only for relevant ad content delivered to the right people at the right time, resulting in higher ROAS (return on ad spend); and d) programmatic ads require fewer people to execute, provide greater transparency, and because each impression is auctioned, the price is more likely to reflect the current true value per impression delivered.

MORE SCREENS DRIVE UPSIDE FOR ADTECH

A key difficulty for ad agencies and brands (i.e. marketers) is that consumers are using more and more screens (e.g. smartphones, watches, desktops, laptops, tablets, TVs, etc.). Consumers are splitting their time and attention across an increasingly wide range of screens. The Deloitte Aug 2022 survey found that US consumers had an average of 22 connected devices in their homes in 3Q22. Nielsen estimates that the average US household has 2.2 viewers, suggesting that each person uses approximately 10 devices. AdTech re-aggregates fragmented audiences into targeted groups of consumers that are large enough for advertisers to reach. The value added by AdTech companies is growing as consumer devices proliferate and consumer time is fragmented.

Competitors Analysis

Perion's competitors can be considered all the advertising companies operating on the Open Web, as Perion operates in so many segments and funnels of the consumer cycle. From large and stable companies like Google, WPP, Omnicom and Publicis Groupe to smaller companies trying to disrupt the industry like AdTheorent, Innovid, DoubleVerify, Viant, Illumin, Magnite, Outbrain, Taboola, Tremor, Stagwell and The TradeDesk.

Looking at the table below, we see Perion Network is in line with the AdTech industry in terms of liquidity, having a current ratio of 2.73. Regarding profitability, Perion Network is not only above the market average but is also the best in the room even though they spend so much on innovation. This ability to create inner value while growing is being very much appreciated by investors that from 2021 onwards have adjusted their preferences and rewarded profitability. In terms of capital structure, only Stagwell seem to be in a difficult position. In another hand, already stable companies like Perion, AdTheorent and The TradeDesk have been reluctant in incurring into debt. With a ROE of 16.94%, Perion have been more than capable of transforming equity financing in results.

	Current ratio	EBITDA Margin	Net Income Margin	Debt to Equity Ratio (D/E)	Return on Equity (ROE)
Perion Network	**2.73**	**19.21%**	**14.90%**	**0.02**	**16.94%**
AdTheorent	5.03	0.77%	17.66%	0.05	56.79%
Innovid	4.43	-18.56%	-14.48%	0.12	-35.63%
DoubleVerify	6.46	20.63%	9.56%	0.10	4.93%
Viant	3.61	-24.98%	-24.39%	0	-4.48%
Magnite	1.18	-19.54%	-22.58%	0.92	21.28%
Taboola	1.61	-0.98%	-0.85%	0.27	-1.43%
Stagwell	0.76	10.31%	1.04%	1.25	3.18%
The TradeDesk	1.9	10.65%	3.36%	0	2.84%
Average	**3.12**	**-2.71%**	**-3.84%**	**0.34**	**5.93%**

Figure 33-Competitors ratios

The advertising industry is highly competitive. The market is highly competitive. It's a dynamic market, subject to rapid development and introduction of new technologies, products and solutions, changing branding objectives, evolving customer demands, rules, regulations and industry guidelines, all of which affect the ability to remain competitive. There are many digital media and advertising technology companies that offer products or services similar to or more compelling than Perion's and that compete for limited publisher advertising budgets and inventory. In addition, companies that do not currently compete in the space may change their services to compete if there is a revenue opportunity, and new or stronger competitors may emerge through consolidation or acquisition. If the Company's digital advertising platform and solutions are not perceived to be competitively differentiated, or if the Company does not develop them sufficiently to keep pace with market developments, or if it does not acquire companies that can help it to close technological gaps in a timely manner and meet market needs, it could lose customers and market share, or be forced to reduce prices, and its operating results could be adversely affected. As a result of

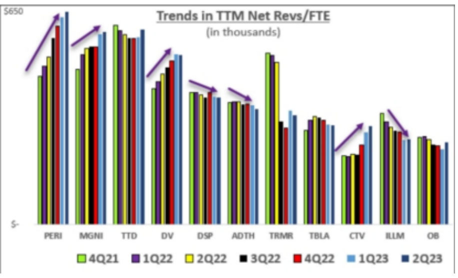

Figure 34-Trends in TTM Net Revenues/FTE in AdTech

these factors, Perion continually strives to diversify its product range to meet the changing needs and interests of customers and to benefit from a variety of different offerings.

Productivity is an extremely important measure of a labor-intensive company's success. In the early stages of a company's lifetime in disrupting industries, it is common to focus solely on growth and innovation and not so much on efficiency. Looking at the chart above, tracking productivity measured by TTM Net Revenues/FTE, one can see Perion is growing the most. This, allied to stable FTE and growing Revenues in a period with no acquisitions can lead to several conclusions: Perion is increasing its efficiency by being able to generate more revenues without more labor; Perion is doing so while still being able to innovate, launching new software and services on a basis (most recently WAVE); comparing this efficiency ratio with market cap, one can see an enormous gap in Perion, translating in the biggest undervaluation of the industry; looking at the revenue mix in terms of self or managed services, Perion stands in the middle with 55% self-services (keep in mind Perion in not only an intermediary of publishers and advertisers but also do creative work) that elevate even more the productivity moto as the creative work is even more labor intensive; this growing productivity in historically labor intensive segments have to do with the integration of AI, as even the creative segments like designing and creating the display and video have been integrated in a data powered process that eliminates the need for more labor and variable costs.

Search Advertising

Market Overview

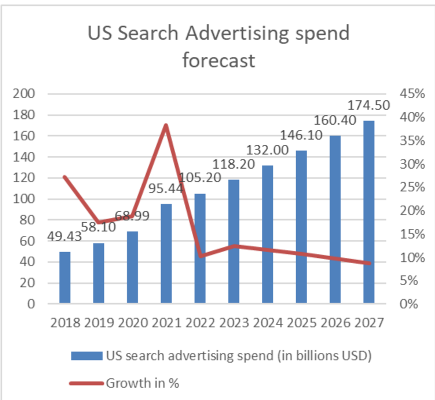

Figure 35- Search Advertising spend forecast
Source: Statista

The search advertising market is inserted in the digital advertising industry, and it is characterized by the promotion of products or services through search engines. It is the most intent-based form of advertising, as advertisements are served in direct response to the search queries, resulting in relevant advertisements that yield significant revenue to the search engine companies. According to Statista, in 2022, U.S. search advertising spend reached $105 billion and it is expected to reach $118 billion this year and $174.5 billion in 2027 (figure 35), representing an annual growth rate (CAGR) of 10.27% from 2023 to 2027.

For years, desktops were the primary devices used for internet browsing and search. Desktop search advertising traditionally targeted users accessing search engines via their computers. However, the rapid rise of mobile devices, such as smartphones and tablets, transformed the search advertising landscape. Mobile

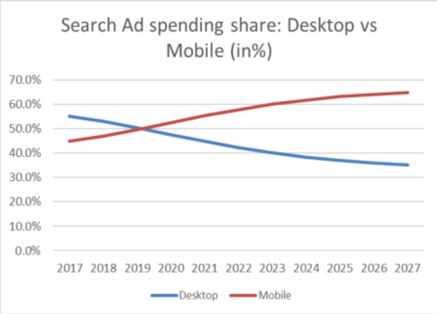

Figure 36- Market Share of desktop search engines
Source: Statista

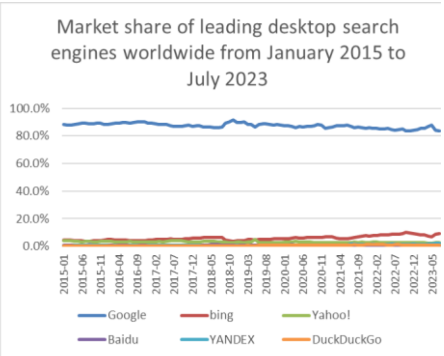

Figure 37- Search Ad Spending share between Desktop & Mobile (in %)
Source: Statista

search advertising is now a fundamental part of digital marketing strategies due to the increasing number of users conducting searches through their mobile devices. According to Statista, while in 2017 the market share of Desktop in search advertising was 55.1%, in 2022 it decreased to 42.2%. It is expected that the Mobile share grows even further down the years, reaching around 65% in 2027 according to forecasts, as shown in figure 36. To maximize their reach and engagement in the evolving search advertising landscape, advertisers are now adopting a multi-device approach, understanding user behavior across different devices and tailoring ad campaigns to increase user engagement across all those platforms.

The search engine market is highly competitive, currently existing six major search engines, as shown in figure 37. Due to its massive user base and effective internal advertising network, Google is by far the most popular among advertisers, followed by Microsoft Bing. According to StatCounter, as of October 2023, Google had around 91.5% Search Engine Market Share Worldwide, while Bing detained 3.1%. These large search engine companies have their own search service offerings, and, therefore, Perion is competing with them and other companies that also generate revenue from searches. Understandably, even though there are only a small number of players in this segment's market, for smaller companies as Perion, it can be difficult to compete with larger companies with more financial capabilities. They need to find technological advantages to stay competitive and thrive.

The search advertising landscape, functions on an auction-based system where advertisers bid on keywords to display their ads in search engine results pages (SERPs). When a user searches for a term related to the advertised product or service, these ads are displayed prominently, marked as sponsored or ads, above or alongside organic search results. Thriving in this market requires understanding key components such as keyword targeting, where advertisers bid on keywords related to their offerings. Ad rank and quality score play crucial roles, as search engines assess ad relevance, quality, and bid to determine where the ad should be in the search page.

Perion Search Advertising Segment

As previously said, the search advertising market not only comprises search engine providers, but also companies like Perion Network and competitors, that focus on doing the best matching between the publishers' audiences and the right search solution. These companies try to optimize their search traffic, driving up their revenues, and maximizing user engagement levels. Innovation in this field is key in order to get new publishers, improve ad targeting, and ultimately find new and better ways of transforming search into revenue. For instance, Perion is a distributor for Bing globally. Microsoft has given the company the right to put Bing on browsers, devices, and websites globally for a share of the ad dollars on Bing's results pages, so, the company constantly tries to convince new clients to use this search engine. Furthermore, the technology of Perion's search solution allows publishers to access an online dashboard providing analytics, reports and performance optimization that enable them to maximize their distribution and monetization. Also, the AI technology behind the search solutions optimizes the various phases of the funnel including intent detection and demand optimization to yield performance optimization and maximized consumer experience.

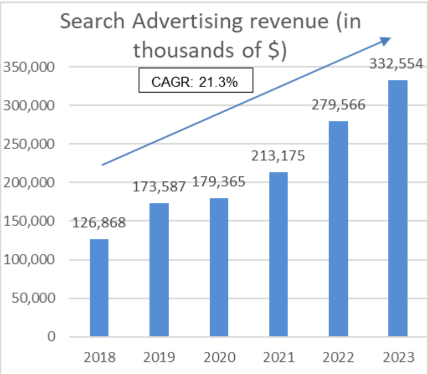

Figure 38- Perion's Search Advertising Revenue evolution

Forecasts

Regarding our revenue forecasts for the search advertising segment, we researched on multiple factors that may affect the company's growth in the segment, getting a compound annual growth rate (CAGR) of 9.47% between 2023 and 2031.

First off, we analysed how the revenues coming from this sector have progressed in the last 5 years. We can see that the company has been successful in growing this segment, even though as % of total revenues, the display advertising segment has been taking share, as one can see on figure 14 above. While in 2019 the search ad segment accounted for 66% of total revenues, in 2022 accounted just 44%. There has been a transition towards the display segment generating most of revenues for the company, something that can also be explained by the larger market and more diversification (CTV, Retail Media, display, and now audio). Nevertheless, the CAGR of search advertising revenue between 2018 and 2023 was 21.3%, as one can attest in the Search Advertising evolution in figure 38. The main value drivers for this have been a constant growth on average daily searches, growing from 9 to 31 million, as shown in figure 39, and a growth in the number of publishers (even though not disclosed every year by the company, the value from Q3 of this year was 164, an increase of 16% YoY). The evolution of these drivers was much due to the successful agreement between Perion and Microsoft Bing. One important assumption we make for the future is that the agreement, which ends on the 31st of December 2024, will be renewed for the years to come. This is the most likely outcome, given how well both companies have strategically worked together, creating revenue from both ends. That led us to analyse Microsoft Bing market share and its progression along the years (figure 40). In a market dominated by Google, it is difficult to win market share from them, however, the latest inclusion of ChatGPT

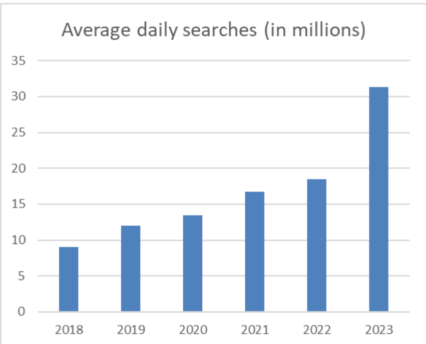

Figure 39- Perion's average daily searches delivered though publishers
Source: Perion's report

Total Bing Search Engine Market Share 2009 to 2023

2018	2019	2020	2021	2022	2023
2.82%	2.44%	2.70%	2.58%	3.19%	2.90%

Figure 40- Total Bing Search Engine Market Share
Source: Statista

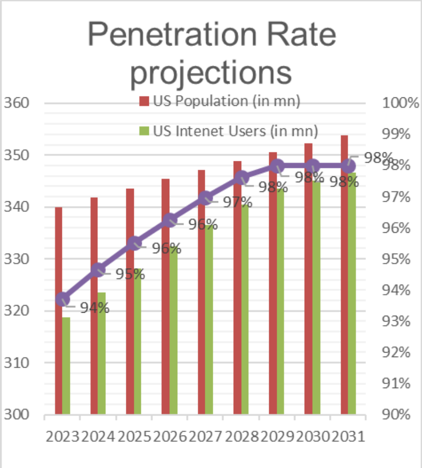

Figure 41- US Population, Internet users and Penetration Rate forecasts
Source: Statista

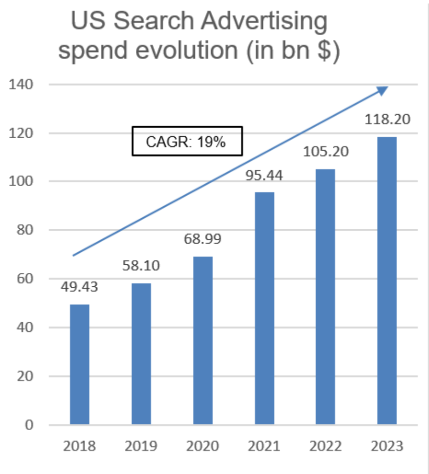

Figure 42- US Search Advertising spend evolution
Source: Statista

onto Bing's search engine is game-changing, hence we believe that Bing will capitalize on this and slightly increase its market share, especially in the U.S, for the next years. It is also worth mentioning that we looked through projections of the U.S population and internet penetration rates for the next years (figure 41) and there are signs that both will increase. This also enters in equation, because there will be more people online, which will increase the number of searches.

Another important aspect is the shift in advertising spending share between desktop and mobile. As it was acknowledged above (figure 36), there is a trend towards the use of mobile devices, and, according to Statista, that will materialize even further in the next few years. As said previously, this will be a great challenge to Perion, especially given the still lack of great variety of solutions for mobile. However, we believe the company is being proactive in this regard and making the necessary efforts to explore monetization from mobile searches, thus, we assume that Perion will not be impacted by this shift.

For the value drivers of Perion, we faced a dilemma. Even though the main drivers of the search advertising revenues are average daily searches, number of publishers and Rate per Mile (Revenue per Thousand Impressions), we decided to take the approach of adding a markup on the U.S search advertising market forecast for the years to come. This is due to the fact that not only does Perion not disclose its RPM metric, but also, it is of extreme difficulty to forecast how efficient ad placement, user engagement, quality and relevance of the ads, and so on and so forth will be. Also, the company does not disclose its number of publishers in all the years analyzed (only the last quarterly reports started having them). Therefore, the method to project next years' growth rate of revenues was to assume the growth rate of Statista's forecast until 2027 for the search advertising market in the U.S and add a markup over it. Since the forecast only covers 5 years, for the remaining, we decided to analyze the growth trend and noticed that since 2023, the growth rate of the search ad market in the U.S decreased by around 1% each year. Consequently, from 2028 until 2031, we assumed that the trend would continue. With regards to Perion's growth rate of this segment's revenues, we believe that the company will be able to grow above the market for the years to come, converging to the average growth in the long run. Not only we took into account all the upside drivers described above, but also looked through the CAGR from 2018 to 2023 from the company and compared it with the market. During that time period, Perion had a CAGR of around 21.3% (figure 38), while the search advertising market in the U.S had approximately 19.1% (figure 42). Therefore, we used this difference of around 2% as our markup from 2024 until 2027, decreasing it to 1% for the next 2 years and even further to 0% from 2030.

Display Advertising

Market Overview

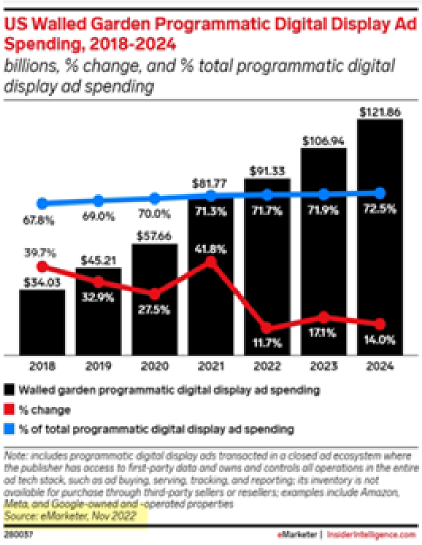

Figure 43-US Walled Greens Display Ad Spending

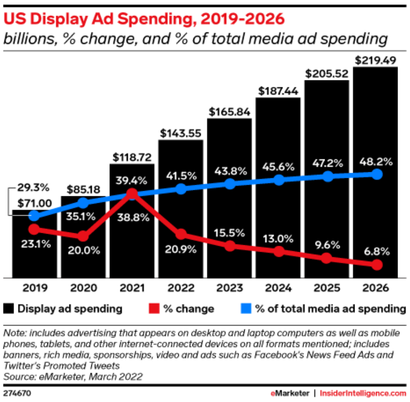

Figure 44-US Display Ad Spending

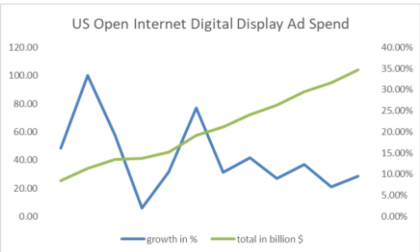

Figure 45-US Open Internet Display Ad Spending

Display advertising includes ads that appear on desktops, laptops and mobile phones, tablets and other internet-connected devices; it includes banners, rich media, sponsorships, video and social media ads. Display ad spending in the US grew by 102% between 2019 and 2022, accounting for 43% of total media ad spending. This growth was largely driven by video advertising, which will grow by 139% over the same period.

Approximately 72% of US digital display ad spend is on Walled Gardens, and we expect these companies to maintain this position. Walled Greens are closed ecosystems where the publisher has access to first-party data and owns and controls all operations across the ad stack, such as ad buying, serving, tracking, and reporting; their inventory is not available for purchase by third parties or resellers. Google is the biggest Walled Green with $71.5bn in revenues, followed by Meta with $51.35bn, and then Amazon, Facebook, Microsoft, YouTube and TikTok.

The other 28% of US digital display ad is on the Open Internet, and this is where Perion's operates and generates revenue.

Beyond ad tech automation, advertisers are increasingly looking for unique ad formats and inventory that can tell powerful stories on digital, using content, rich media and digital video/CTV. "Banner fatigue", which describes the fact that consumers are so overwhelmed by digital advertising that they stop paying attention, is a well-known reality that Perion's high-impact units overcome.

eMarketer reports that rich media, including high-impact ad formats, as well as outstream and instream video, will account for $88 billion of U.S. digital display ad spending in 2022 and is expected to grow by 81% to approximately $159 billion by 2026, according to eMarketer. U.S. digital video, including instream formats such as 'pre-roll' and outstream formats such as 'inline', will account for the majority of rich media ad spend at more than $76 billion in 2022 and is expected to reach $143 billion by 2026, an increase of 87%.

US connected TV ad spending is expected to reach $21 billion in 2022 and $44 billion by 2026, an increase of 106%.

We believe CTV ads have several key advantages over linear TV ads, including better targeting, as digitally delivered CTV ads can be personalized based on data provided by each consumer and CTV has better data, metrics and potential results available to CTV ad buyers, which better aligns with the diverse goals of ad agencies, marketers and brands.

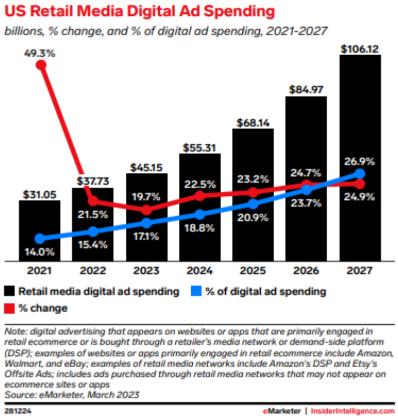

Figure 46-US Retail Media Ad Spending

Retail Media is another important sector for advertising, as retailer data is highly leveraged to create advertising opportunities both on the retailer's site and on the open web. Retail media networks are considered the "third wave" of digital advertising. According to eMarketer, retail media will account for $37 billion, or 15.0% of US digital ad spend in 2022, and is expected to grow by 48% to reach $55 billion, or 17.8% of US digital ad spend, by 2024.

Social networks are expected to continue to be an important platform for digital advertising, and advertisers will look to emerging platforms such as TikTok to reach both existing and new audiences. According to eMarketer, social networks will account for $65 billion in 2022, or 26.3% of US digital ad spending, and are expected to grow by 21% to reach $79 billion in 2024, or 25.5% of US digital ad spending.

Perion Display Advertising Segment

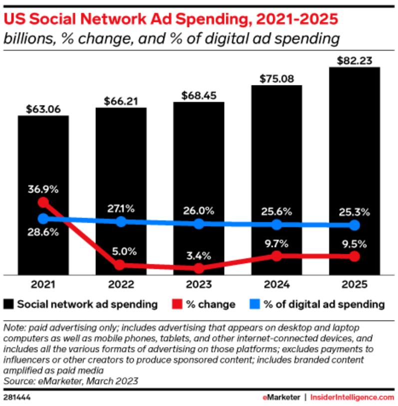

Figure 47-US Social Network Ad Spending

Perion offers advanced technological solutions, which apply to the majority of consumer journey and marketing funnel, enabling the Company to continuously expand its margins.

A normal, tailor-made, full extent consumer journey would begin in a sales meeting. From there, Perion services would range from creating High-Impact Creative Advertising; strategic use of advanced data, targeting and audience segmentation; relevantly distribute across premium channels like CTV, video, DOOH, audio or social; manage and measure results across campaigns, channels and screens as seen in Figure 48.

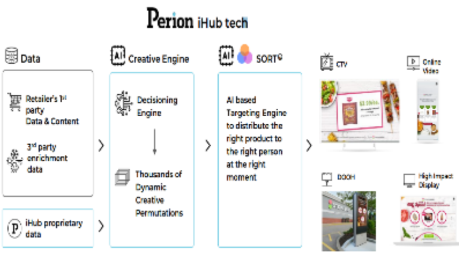

Figure 48-Perion iHub Tech

At the heart of this cycle is the centralized and intelligent **iHub**, essential to the display segment as it connects their High Impact Creative Ads with publishers in different channels processing billions of signals in a millisecond - this is the core AdTech industry differentiator and cost efficiency gain for Perion.

Figure 49-High Impact Advertising

Perion's High Impact Advertising is the ground-breaking solution for successful creative expression. It consists of rich media and captivating interactive television. Prominent corporations including Mercedes-Benz, IBM, Disney, Walmart, Albertson's, and Verizon are among the clientele. Perion uses Undertone to operationalize billions of data points derived from years of user engagement and interactions with various types of advertising units. These data points are based on proprietary, artistically guided AI solutions.

By predicting how consumer groups will react to High Impact Advertising at scale, Perion's proprietary cookie-less targeting solution, SORT®, enables superior performance that lets brands achieve optimal performance without the privacy-invading practices of legacy third-party cookie-based targeting.

Figure 50-SORT

Vidazoo, provides publishers with industry-leading video technology and revenue. The technology products that Vidazoo distributes the most are the Online Video Player, Yield Ad Management Platform, Content Monetization System, and AdServer. Furthermore, Vidazoo offers monetization services and makes money through an ad marketplace that links 28 programmatic advertisers with premium, brand-safe video inventory possibilities across 99 publishers worldwide.

Figure 51-Outperformance of SORT in Lift of CTR

Figure 52-Vidazoo

Wildfire propels incremental growth despite falling sales. The Wildfire platform continuously optimizes content, advertising, and layout within owned and maintained small sites, using intent signals to keep users interested. To maximize user engagement and publisher profitability, machine learning uses AI analysis and thousands of combinations of content and advertising. Wildfire capabilities allow to optimize revenue-per-session as well as refine and inform decision-making by identifying pockets of profitability and loss.

Advertisers may use the platform's AI and rule-based methodologies to optimize budgets across channels, execute campaigns with a single, unified user interface, and monitor their cross-channel paid digital advertising operations in real-time using Paragone. Under the hood, Paragone gathers and unifies previously fragmented advertising data, normalizes, cleans, and presents it, making it simple for agencies and brands to oversee cross-platform campaigns. The platform aggregates data from attribution providers including Google Analytics and AT Internet and integrates with some of the biggest social networks, including Meta's networks, LinkedIn, Snapchat, Pinterest, Twitter, TikTok, and Facebook.

Figure 53-Wilfire use example

The result of this diversification through innovation and focus on technology has been leading to continuous and sustained revenue and margins (the efficiency on the cost side will be further explored in another section) of growth. The Display Advertising segment grew on a CAGR of 60% from 2019 to 2022. Looking at the last earnings reports, Perion has been outperforming the industry in all its sub segments.

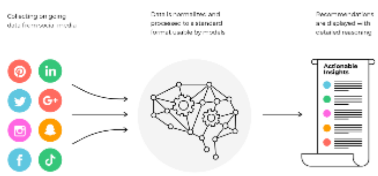

Figure 54-Paragone´s technology

In the last report, Q3 2023, Perion announced YTD-23 CTV REVENUE growth YOY of 48% compared to the 21.2% expected for the US CTV market and YTD-23 Retail Media Revenue Growth YOY of 81% compared to 19.7% expected for the US Retail Media market.

	Digital Advertising	Video	CTV	Retail Media	Search Advertising
Perion H1-23	19%	20%	54%[1]	62%	19%
Perion Q2-23	22%	14%	104%[1]	63%	21%
	7.8%	11.2%	21.2%	19.7%	8.3%
	9.5%	7.0%	16.2%	10.1%	9.8%

Figure 55-Perion's Outperformance

To further show this stellar growth, looking at Q2 information about YoY growth, Perion grew more than the US market for each respective segment: Digital Advertising-22% vs 7.8%; Video-14% vs 11.2%; CTV-104% vs 21.2%; Retail Media-63% vs 19.7%.

Forecasts

"A rising tide lifts all boats". Perion Network is not only expected to keep enjoying the rising tide but also to keep having the faster and best driven boat.

In which ocean is Perion's boat at? Valuation and definition wise, the Israeli company should be included in the small AdTech industry. However, its total addressable market (TAM), we believe, is Non-Walled Greens Programmatic Digital Display Advertising and the proxy for future growth is Advertising Spending.

We believe the other ocean, Walled Greens like Meta, Amazon, TikTok and so on are expected to keep their quota of advertising expenditure stable around 71%, leaving 29% for the Open Internet. We believe this assumption can be conservative as the regulatory problems around these companies and their saturation can lead to spending reallocation to the Open Internet. Also, Perion's *cookieless* SORT may be adopted by Walled Greens to substitute the soon to be non-compliant cookies.

How's the tide? For industry growth forecasts, we used eMarketeer's as they are the ones used by the whole digital advertising sector and Perion. Those forecasts are built upon a foundation of vetted third-party data. After applying rigorous proprietary methodology, they examine the advertising, media, and marketing industries with a 360-degree perspective.

eMarketeer researchers forecast the US Display Ad Spending to move from $147b in 2023 to $335b in 2031, corresponding to a CAGR of 9.88%. Under our assumption that the Walled Greens will keep their quota stabilized, US Non Walled Greens Programmatic Digital Display Ad Spending will grow from $41b in 2023 to $104b in 2031 meaning a CAGR of 10.99%.

The forces pushing for this rising tide have been explained in the prior AdTech Industry Overview and Display Market Overview.

US Non Walled Greens Programmatic Digital Display Ad Spending

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Total in billion $		22.01	25.55	34.07	40.62	41.42	45.80	57.55	63.59	72.44	78.96	88.63	94.84	103.88
Total in million $		22010	25554	34072.6	40624.7	41419.4	45804.6	57545.6	63587.9	72444.8	78964.8	88631.18284	94835.36564	103876.3372
Growth in%			16.10%	33.34%	19.23%	1.96%	10.59%	25.63%	10.50%	13.93%	9.00%	12.24%	7.00%	9.53%
% of total digital ad spending	32.20%	31.00%	30.00%	28.70%	28.30%	28.10%	27.50%	28.00%	28.00%	29.00%	29.00%	30.00%	30.00%	31.00%

Figure 56-US Non Walled Greens Display Ad Spending

Can Perion's boat navigate the tide better than the other boats?

In the prior chapter we showed how Perion is built on innovation, tech and diversification. The advertising market is in constant change-sea current changes direction very often. Remember that not only 10 years ago, advertisers would buy ad spaces to Publishers manually, with no live market or data driven methods, just like a food market 2000 years ago. So, by diversifying, Perion Network guarantees to always enjoy the Advertising expenditure growth-the rising tide.

Some forms of advertising are becoming obsolete or at least stagnant, like TV. Perion doesn't invest in those. The innovative company bets on most of the aspects of the advertising consumer journey and in the biggest trends like CTV, retail media, social media and most recently audio.

With this diversification moto, one would believe that they will follow their addressable market growth, Non-Walled Greens Programmatic Digital Display Advertising.

The company could probably still outperform the market with this supposed diversification as they achieve a lot of data and marketing funnel synergies and efficiency gains from their innovative central platforms like iHub and SORT.

However, Perion does not only invest and try to duplicate in growing markets and segments – **Perion does not buy more boats to take advantage of the rising tide**.

Perion adds more boats and upgrades them, making them top of the class – As it was explained in the last chapter, Perion innovates in every segment they serve. Using AI and ML in all parts of the consumer journey allows the clients to have the best Return on Ads (ROA), more clicks, more views, more stickiness and more revenue provided in only one marketing channel. The last expression of this innovation is patented SORT.

Having this differentiator as a base assumption for the forecast of Display Advertising segment, it was projected an outperformance compared to the market growth of 4% in 2024 and 2025, 3% in 2026 and 2027, 2.5% in 2028, 2% in 2029 and 1.5% in 2030 and 2031 corresponding to a CAGR of 14.84%. This outperformance is prudent, especially looking at this year resilience in a bad year for Open Internet Ad companies. The outperformance slows down with time as other companies keep up with AI and other relevant innovations.

However, the fact Perion already covers all the trends in its portfolio will be essential in the uncertain future as they will only need to move capital allocation internally, increasing the speed of response to demand. This aspect is reflected in the persistence of outperformance, tending to the market growth but not matching it in the foreseeable future.

PERION NETWORK

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Display Ad Revenue in millions	125.977	87.863	148.698	265.323	360.69	423.906	485.742	629.682	714.689	835.676	931.779	1064.476776	1154.957301	1282.38759
in thousands	125,977	87,863	148,698	265,323	360,690	423,906	485,742	629,682	714,689	835,676	931,779	1,064,477	1,154,957	1,282,388
Growth in %		-30.25%	69.24%	78.43%	35.94%	17.53%	14.59%	29.63%	13.50%	16.93%	11.50%	14.24%	8.50%	11.03%

Figure 57-Perion Network's Display Ad Spending Forecast

Opportunities, challenges, and risks

As previously mentioned, the company is in a privileged place in the market due to its longstanding partnership with Microsoft Bing. As one can observe on figure 6 and 14 above, almost all search advertising revenues come from them and so, the company is heavily reliant on its growth, especially in market share and number of searches, in order to, itself, grow. Even though Google has the supremacy, the most recent technology that is shaking up internet in general, and search advertising in particular, is Microsoft's Bing integration of the AI-driven ChatGPT. This new feature will definitely shake the search engine dynamics and Perion can capitalize on its agreement with Microsoft Bing and grow together. This addition creates a massive selling point for Bing, thus, Perion can find it easier to get new clients to switch to this search engine, driving up faster growth.

Another big opportunity for Perion is to leverage its innovative technologies and solutions to enhance ad targeting and user engagement. The company is keen in using machine learning and AI to optimize the whole ad journey and has acquired several AI companies throughout the years to help them in obtaining that competitive advantage. Also, one key aspect of the potential growth in this segment is indeed the company's new CEO, which was the previous general manager of the search advertising business unit of Perion. He has significantly modernized and enhanced the search segment, driving up revenue growth (figure 38) and cash generation, while forging a strong and collaborative relationship with Microsoft. So, if there is anyone that knows how to find its way in the search advertising landscape, it is him.

In terms of the challenges and risks the company will face in the future with regards to the search advertising segment of the business, one that stands out is, as previously analyzed, the trend towards shifting internet usage from desktop to mobile devices. Perion faces the challenge of rapidly and successfully implement adequate revenue-generating models for mobile platforms to respond to such decline in desktop usage, especially given that currently, most of its services are still not widely spread on mobile platforms.

Other big challenge the company has to face is making sure that the advertisers' content is visible. Some of Perion offerings can be considered by some third parties, including anti-virus software providers, as constituting "malware" or "spamming". As a result, the company's or publishers' software is occasionally blocked by utilities designed to detect such practices. The growing use of ad blockers and privacy concerns limit the visibility of ads and the collection of user data, hindering personalized targeting and potentially impacting ad performance.

In regard to the risks associated with Perion's search advertising segment and market, the one that is the most dangerous for the company is undoubtedly the termination, not renewal, or amendment (on terms not favorable to the company) of the agreement with Microsoft Bing. If that were to happen, Perion would experience a significant decrease in its search advertising revenue and would be forced to seek alternative search providers at likely less competitive terms. This over reliance on the Microsoft Bing agreement can be dangerous for the company, especially since the large search engine companies, including Google, Microsoft, Yahoo, and others have become increasingly aggressive in their own search service offerings. If Microsoft decides to engage in more direct relationships with publishers, the agreement in place with Perion might become threatened. This is why it is imperative that the technological advantage of Perion's platform, products and other services is maintained in order to attract more publishers to adopt Bing as their default search engine.

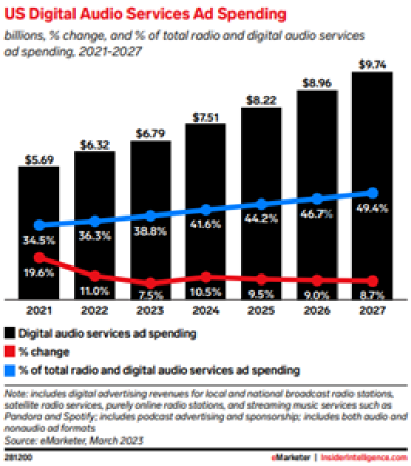

Figure 58-US Digital Audio Ad Spending

In regard to the digital advertising segment, Perion expands its advertiser suite of solutions with the introduction of **WAVE** (Waveform Audio Voice Engine), a generative AI-powered dynamic audio solution that enables advertisers to generate personalized audio advertising messages at scale. The power of the solution is based on advanced algorithmic AI processing which combines first-party data with voice, reaching consumer audiences with tailored audio messages that adapt in real time to parameters such as weather, location, daypart, and many others.

Bringing together the relevance and importance of SORT expressed throughout this report and the fact Perion have the patent of this one-of-a-kind product, it was disclosed to us by the VP Investor Relations that it is in course a project to use SORT not only for Perion Network clients but to also sell this innovative and compliant product to other advertising clients to use them with their clients. This can bring a lot more revenue at a small cost because it is already developed both the software and its monetization KPIs. It is the **S(ORT)aaS**.

On another hand, there are some **risks**. Large and established internet and technology companies, such as Google, Meta and Amazon, play a substantial role in the digital advertising market and may significantly harm Perion's ability to operate. Such high concentration causes Perion to be subject to any unilateral changes they may make with respect to advertising on their respective platforms.

These companies may leverage their power to make changes to their web browsers, operating systems, platforms, networks or other products or services in a way that impacts the entire digital advertising marketplace. Moreover, leading mobile operating systems, including Apple iOS and Google Android, have implemented and may plan to further implement advertising and targeting restrictions within applications running on their platforms.

Certain of Perion's primary advertisers and publishers are owned, affiliated with or controlled by a small number of large holding companies. If any of these holding companies decide to reduce, amend or terminate their business relationship for any reason, and/or in case there is a rapid and/or significant decline in inventory available, it may lead to a material adverse impact on business, financial conditions and results of operation.

Valuation

Cost & Tax Structure

Having analyzed Perion's revenues per segment and how we forecast them for the future, it is essential to fully understand the costs and expenses that the company is used to face on a consistent basis, how they connect to the activities of the company and how we believe they will evolve in the future. It is important to note that we used the % of revenues to forecast all the costs below besides Depreciation & Amortization. We believe it is the most consistent approach given our analysis on last 5 years' costs. The representation of our numbers is demonstrated below all explanations, in figure 59.

First of all, we have what the company considers as "cost of revenue". Even though we believe the company will make more strategic acquisitions, which will increase the cost of revenue in absolute terms, with higher revenues forecasted, these costs become proportionally lower with time, as demonstrated by the decrease in the last 3 years. Thus, we assume the downward trend as % of revenues and lock the value at 4% from 2026.

Analyzing now the Research & Development Expense, as the name entails, consist of costs related to the development of Perion's products, in this case, new technologies and software. Retention expenses related to M&A transactions are also accounted. For our forecast we decided to assume the value of % of revenues for the remaining years to be the average of the last 5, which is a period with multiple acquisitions, being consistent with our belief that M&A activity will remain high in the next years.

Regarding Selling & Marketing Expense, consist of salaries and other personnel-related expenses related to sales and marketing. For the years to come, and given the decreasing trend of % of revenues, we considered it and locked the value at 8% from 2024 onwards.

The Traffic Acquisition Costs and Media Buy consist primarily of payments to publishers and developers who distribute Perion's search properties alongside with their products. In addition, it includes costs of advertising inventory incurred to deliver ads. Since 2024 we decided to assume as margin the average from the last 5 years given the lack of a clear trend. Even though IHub efficiencies can help in reducing this media margin even further, the need to distribute the company's products and its presumable acquisitions in the future is the reason for this assumption.

Display and Search Advertising	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Cost of Revenue	23,757	25,520	22,477	25,197	30,404	40,049	38,870	47,504	47,635	54,530	60,229	67,325	72,378	78,729
% of revenue	9.4%	*9.8%*	*6.9%*	*5.3%*	*4.7%*	*5.3%*	*4.5%*	*4.5%*	*4.0%*	*4.0%*	*4.0%*	*4.0%*	*4.0%*	*4.0%*
Research & Development Expense	18,884	22,585	30,880	35,348	34,424	36,365	66,137	80,829	91,182	104,380	115,289	128,873	138,544	150,701
% of revenue	7.5%	*8.6%*	*9.4%*	*7.4%*	*5.4%*	*4.8%*	*7.7%*	*7.7%*	*7.7%*	*7.7%*	*7.7%*	*7.7%*	*7.7%*	*7.7%*
Selling & Marketing Expense	38,918	34,736	39,085	53,209	56,014	64,201	69,102	84,452	95,270	109,059	120,458	134,651	144,755	157,458
% of revenue	15.4%	*13.3%*	*11.9%*	*11.1%*	*8.7%*	*8.5%*	*8.0%*	*8.0%*	*8.0%*	*8.0%*	*8.0%*	*8.0%*	*8.0%*	*8.0%*
General & Administrative Expense	16,450	14,999	15,819	20,933	23,813	49,410	43,463	53,118	59,922	68,595	75,764	84,691	91,046	99,036
% of revenue	6.5%	*5.7%*	*4.8%*	*4.4%*	*3.7%*	*6.5%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*
Traffic acquisition costs and media buy	130,426	135,891	197,626	288,018	372,601	429,743	487,492	595,784	672,099	769,380	849,791	949,918	1,021,201	1,110,814
% of revenue	51.6%	*52.0%*	*60.2%*	*60.2%*	*58.2%*	*56.8%*	*56.4%*	*56.4%*	*56.4%*	*56.4%*	*56.4%*	*56.4%*	*56.4%*	*56.4%*

Figure 59- Forecast for costs and their drivers

For the Depreciation & Amortization, it consists of depreciation of PP&E and the amortization of Perion's intangible assets because of its acquisitions. The company discloses in its annual report which part is related to PP&E and which part is related to intangible assets. It also discloses the amortization of Intangible assets for the next 5 years (figure 60). Given that matter, we decided to take a different approach than the one we used for the other costs, forecasting the depreciation and amortization separately, and then adding them. We forecast the depreciation related to PP&E as the average from the last 5 years (PP&E costs only). For the Amortization forecast we use the values given by the company until 2025 and then average the last 4 years in order to take into account amortization levels on acquisition years.

2023	$	12,255
2024		11,718
2025		8,283
2026		6,834
2027		6,590
Thereafter		5,984

Figure 60- Perion's amortization estimation
Source: Perion's report

In regard to tax considerations, there is a remark to be done. The statutory tax rate in Israel is 23%, however, Perion has a "Preferred Enterprises" status and so, there are important tax adjustments made (benefits), proportional to the result before taxes. Consequently, to estimate these core tax adjustments, we assumed them to be around 8% of the core result before taxes, the average of the last 5 years.

Balance Sheet drivers' analysis

Now, after having explained how Perion generates growth and develops its business, it is fundamental to analyze how Perion invests, how they fuel their investments and how they manage the generated growth. This analysis is the final piece that allows us to complete the value creation puzzle.

In terms of Net Working Capital, other than the most common items, it is important to refer the Other Current Liabilities that account for the payment obligations related to acquisitions. We forecast them to remain stable over time, as it is expected that Perion will keep its M&A activity. Also, as one can notice in the table below, the NWC remains negative overtime and that is mainly due to Accrued Expenses related to innovation and the acquisition payments. This way, it is a "positive" negative NWC as they are not short on liquidity nor its growth is expected to sudden stop.

Operating cash	15,171	15,687	19,684	28,710	38,415	45,388	51,826	63,339	71,452	81,795	90,343	100,988	108,566	118,093
% of revenue	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
Accounts Receivable	55,557	49,098	81,221	115,361	160,488	173,509	198,123	242,135	273,150	312,687	345,367	386,060	415,030	451,450
Average collection period	80	69	90	88	91	84	84	84	84	84	84	84	84	84
Prepaid expenses and Other Current Assets	5,227	3,170	4,560	8,075	12,049	12,465	14,234	17,395	19,624	22,464	24,812	27,735	29,817	32,433
% of revenue	2.07%	1.21%	1.39%	1.69%	1.88%	1.65%	1.65%	1.65%	1.65%	1.65%	1.65%	1.65%	1.65%	1.65%
Restricted Cash	0	1,216	1,222	1,089	1,295	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
% of revenue	0.00%	0.47%	0.37%	0.23%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
Accounts Payable	38,208	47,681	72,498	107,730	155,854	169,609	192,565	234,055	262,008	299,881	331,187	370,168	397,920	432,809
Average payable period	72	89	102	107	124	99	99	99	99	99	99	99	99	99
Short-term Deferred Revenue	3,794	4,188	5,711	3,852	2,377	9,107	10,399	12,709	14,337	16,412	18,127	20,263	21,784	23,695
% of revenue	1.50%	1.60%	1.74%	0.81%	0.37%	1.20%	1.20%	1.20%	1.20%	1.20%	1.20%	1.20%	1.20%	1.20%
Accrued Expenses and Other	17,240	18,414	21,188	40,331	37,869	52,443	59,882	73,185	82,559	94,509	104,387	116,686	125,442	136,450
% of revenue	6.82%	7.04%	6.46%	8.43%	5.91%	6.93%	6.93%	6.93%	6.93%	6.93%	6.93%	6.93%	6.93%	6.93%
Other Current Liabilities/Payment obligation related to acquisition	1,813	1,025	7,869	38,179	34,608	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
Net Working Capital	**14,900**	**-2,137**	**-579**	**-36,857**	**-18,461**	**-28,297**	**-27,163**	**-25,579**	**-23,177**	**-22,357**	**-21,679**	**-20,834**	**-20,233**	**-19,477**

Figure 61 - Net Working Capital items and drivers

As for Core Business Invested Capital, it is forecasted to keep rising although slowly. Intangible assets are defined by Perion as acquired technology, customer relationships and trade name. In such a competitive industry as AdTech the growth in revenue will be intrinsically connected to technological innovation, therefore, we believe % of Revenues to be a good driver (average of the last 3 years). Since Goodwill is what companies' book on the balance sheet when they acquire another company above the book value, we felt that this was not related to any specific driver and difficult to estimate. Therefore, we assume the last value of 2022, especially because we believe that the company will continue to make acquisitions in the future. Our forecasted evolution of the IC translates the persistent investment to be more and more competitive in a growing market but also the scalability: as Perion invests and creates ground in AI, the less proportionally capital will be needed in the future.

Property, Plant & Equipment, Net	15,649	10,918	6,770	4,211	3,611	3,782	4,319	5,278	5,954	6,816	7,529	8,416	9,047	9,841
% of revenue	6.2%	4.2%	2.1%	0.9%	0.6%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Operating Lease Right of Use Assets	0	22,429	20,266	11,578	10,130	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Intangible Assets, net	6,496	2,635	24,376	56,700	51,664	68,962	78,745	96,237	108,565	124,278	137,267	153,441	164,955	179,430
% of revenue	2.57%	1.01%	7.43%	11.85%	8.07%	9.12%	9.12%	9.12%	9.12%	9.12%	9.12%	9.12%	9.12%	9.12%
Goodwill	125,051	125,809	152,303	189,265	195,527	195,527	195,527	195,527	195,527	195,527	195,527	195,527	195,527	195,527
Deferred Tax Assets	4,414	6,171	7,111	5,228	5,779	6,624	7,864	9,992	11,753	13,542	15,021	16,863	18,174	19,822
% of income before taxes	30.05%	34.27%	58.03%	11.39%	5.29%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
Payment obligation related to acquisition	0	0	30,035	33,250	33,113	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
Core Business Invested Capital	**166,510**	**165,825**	**180,212**	**196,875**	**215,137**	**226,597**	**239,291**	**261,455**	**278,621**	**297,807**	**313,665**	**333,412**	**347,470**	**365,144**

Figure 62 – Core Business IC items and drivers

Non-Core Business Invested Capital is relevant to mention due to Perion's short-term investments that we forecasted using excess cash as the driver. Excess cash was calculated based on core result because the company is not expecting to incur into debt in the foreseeable future (nor distributing dividends) so we believe this is a good driver and the % will lower as Perion gets more mature.

Other Noncurrent Assets	943	708	496	79	49	49	49	49	49	49	49	49	49	49
Other Noncurrent Liabilities	13,884	6,591	6,713	9,541	11,783	11,783	11,783	11,783	11,783	11,783	11,783	11,783	11,783	11,783
Short-Term Investments	4,000	23,234	12,700	217,200	253,400	168,975	187,247	216,287	174,446	161,222	178,831	152,522	164,381	147,110
% of excess cash	16.71%	102.34%	45.40%	286.79%	183.88%	150.00%	140.00%	140.00%	120.00%	110.00%	110.00%	90.00%	90.00%	80.00%
Non Core Business Invested Capital	**-8.941**	**17.351**	**6.483**	**207.738**	**241.666**	**157.241**	**175.513**	**204.553**	**162.712**	**149.488**	**167.097**	**140.788**	**152.647**	**135.376**

Figure 63 – Non Core IC items and drivers

As it was stated in the beginning of this chapter, if we integrate this with the rest of the Report, we get a clear view, the FCF that is expected to grow 555% over the next 8 years.

FCF		**-9,574**	**8,940**	**-178,590**	**46,959**	**180,253**	**95,309**	**108,283**	**210,084**	**206,211**	**201,535**	**269,045**	**256,975**	**307,776**

Figure 64 - FCF

DCF Method

As we built a deeper knowledge of the company, market trends, and metrics evolution, we believe that the DCF method is the most advantageous to value the company. We used a forecasting period of 8 years until 2031(only started to forecast from 2024 onwards; 2023 was projected using the information from the first 3 quarters and the fourth was computed using the average revenue YoY growth from the 3 prior quarters), as we believe that only by that time the growth associated with the industry will be at steady state. By then, to get the terminal value, we applied the perpetuity growth rate aligned with the long-term global GDP growth rate, of 2%, to core free-cash-flow.

WACC Model

Perion Network stated that they don't expect to incur in debt in the foreseeable future. Even if acquisitions are made, they will be financed with equity and retained earnings.

This way, the only debt in Perion's capital structure are short-term and long-term operational leases that account to 1.93%. Currently, Perion's market value equity is $583 million. We forecast Debt-to-Equity ratio to remain stable. As such, we believe the best approach to discount cash-flows is by obtaining the discount rate through the WACC model.

To obtain Perion's beta, the daily returns of the SPX Index and Perion Network from the last 5 years were extracted, its logarithmic daily change computed and the slope from both was obtained, reaching a raw beta of 1.26.

Although the adjusted beta was computed, we don't believe that there should be a tendency for conversion with the market beta because we believe there will be plenty of risk and volatility in the next years, enumerated in the report.

By relying on Statista Market Risk premium (5,7%) and being the last U.S. government 10-year treasury bond 4%, which we considered the risk-free rate, using the CAPM Formula, the calculated Return on Equity is 12.05%.

Perion estimated collateralized borrowing rate of the Company, adjusted to the specific lease term and location of each lease, obtaining a rate of 5.23%. We believe this is the correct approach as these are operational leases and not financial. However, 4.6% was used as cost of debt, as suggested by Bloomberg, because we forecast rates to be lower in the next years as leases are being rolled over and Perion is not expecting to incur in more debt, having plenty of liquidity.

As mentioned before, we assumed a Debt weight of 1.93% and Equity weight of 98.07%. Hence, our Weighted Average Cost of Capital is assumed to be 11.12%.

However, a penalty of 2% of was applied to Perion's WACC as we believe that even considering the risks from public information exposed in the report and internalized by the Market, there is uncertainty we believe is not being taken into full account. The first is the Israeli war and possibility of *cancel culture* effects, noticing 10% of revenues don't come from the US and some Perion employees are making bold public claims about the war on their social media pages. On the other hand, there are finance and governance issues that were noticed doing this report, typical of companies in a young growing-focused phase. The fact acquisitions weren't done using debt in years with access to "free-money", the fact Perion Network insists in financially framing the company as a whole with no segmentation of revenues and costs by subsidiary, no segmentation of costs per consumer journey phase and service and poor financial information.

With 46 million shares outstanding, our base-case scenario price target for fiscal year 2024 is $43.03 per share. As of 11th December 2023, Perion's current price stands at $27.63, which translates into a 55.73% total return for shareholders in such scenario.

Relative Valuation

As a complementary method to the DCF Valuation, a relative valuation was performed based on the peers we chose earlier in the report. We chose EV/EBITDA, EV/REVENUE and P/E as metrics.

Due to the nature of the AdTech industry, it is hard to draw conclusions. As an emerging group of companies, most are still unprofitable or with small earnings as they are still focusing on growth and investing a lot in research and development.

Using the peers defined, we got an EV/Sales mean multiple of 4.6x, an EV/EBITDA mean multiple of 16.9x, a P/E ratio of -72.7 and a Forward P/E ratio of 0.

Compared with Perion's EV/Sales of 1.63, EV/EBITDA of 9.03, P/E ratio of 12.47 and a forward P/E ratio of 10.59, one can see that even in a still volatile and fast-paced industry, Perion Network stands out as more stable and with a better cost structure and margins without neglecting innovation.

Using the industry EV/EBITDA of 16.9x, Perion's price would be 53.09, meaning Perion is undervalued compared to its peers.

Bullish Scenario: S(ORT)aaS fueled by growth & AI efficiency

As discussed earlier in Opportunities for the Display Advertising segment, there is the strong possibility of the creation of a new segment, the selling of the SORT software to other advertising agencies. This, combined with faster than expected GDP recovery in the USA, AI efficiency gains reflected on Traffic Acquisition Costs reduction and faster adoption of CTV on Retail Media, that can be potentiated like Peanut butter and chocolate can lead to great results for Perion Network. Forecasts were made under these assumptions and led to a revised price target of $49.46.

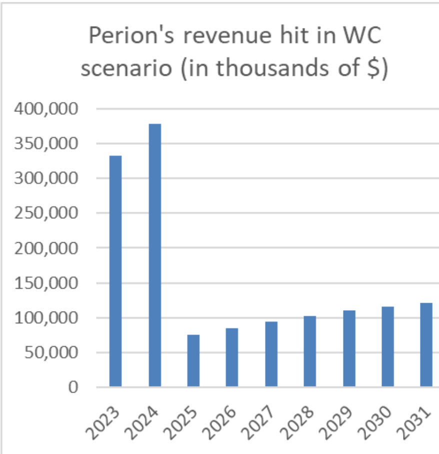

Figure 65- Perion's revenue hit in Worse Case Scenario

Bearish Scenario

Regarding the Worse Case Scenario, the main assumption is that Microsoft Bing decides not to renew the agreement it currently has in place with Perion, which ends at the end of the 2024 year. To forecast the search advertising revenues, we decided to keep our assumptions made in our bear case with the particularity of, in 2025, only applying the forecasted growth of revenues over the share of revenues not coming from Microsoft Bing in 2024 (last year of the agreement). Presumably, the revenues coming from the search advertisement segment take a big hit as shown in figure 65, decreasing from $378,031 in 2024 to $75,578 in 2025 (in thousands). This translates in a CAGR of -11.81% between 2023 and 2031. In this scenario, and since Perion would have to find new solutions, we consider that the Selling & Marketing Expense and the Traffic acquisition costs and media buy increase at higher levels than our base case, when taking into account the % of revenues as the driver, with costs in 2025 maintaining the same values as in 2024, and the % of revenues from 2026 onwards to be the rolling average of the last 5 years. All things considered, this worse scenario provides a valuation to Perion Network of $11.44 per share, that would change our recommendation to SELL. This shows perhaps the overreliance on Microsoft's agreement and the potential risk that Perion might have to face in the future.

Sensitivity of Share Price						
		WACC (Discount Rate)				
		12.12%	12.62%	13.12%	13.62%	14.12%
Growth Rate	1.0%	44.90	42.56	40.43	38.47	36.66
	1.5%	46.45	43.95	41.67	39.59	37.67
	2.0%	48.15	45.47	43.03	40.80	38.76
	2.5%	50.03	47.13	44.51	42.13	39.96
	3.0%	52.12	48.97	46.14	43.58	41.25

Figure 66- Sensitivity Analysis of Share Price

Sensitivity Analysis

As expected, our model might be subject to some input risk. Given such, we decided to perform a sensitivity analysis with 2 of the most critical inputs, WACC and Perpetuity Growth Rate, and see how the Share Price and Enterprise Value would change to small changes using a delta of 0.5%. This sensitivity analysis is important to test the robustness of our model, and, as our findings show in figure 66, all the combination computed would keep the "BUY" recommendation, with a minimum share price of $36.66 and a maximum price of $52.12. In figure 67 we can observe the changes in enterprise value that derive from the changes in our 2 inputs mentioned above, with the EV ranging from $1,903,254 to $2,636,153.

Sensitivity of Entreprise Value (EV)						
		WACC (Discount Rate)				
		12.12%	12.62%	13.12%	13.62%	14.12%
Growth Rate	1.0%	2,293,870	2,183,262	2,082,003	1,988,981	1,903,254
	1.5%	2,367,358	2,248,950	2,140,952	2,042,077	1,951,239
	2.0%	2,448,106	2,320,821	2,205,201	2,099,741	2,003,182
	2.5%	2,537,244	2,399,792	2,275,499	2,162,589	2,059,594
	3.0%	2,636,153	2,486,969	2,352,740	2,231,353	2,121,077

Figure 67- Sensitivity Analysis of Entreprise Value (EV)

Final Recommendation

In what regards the final recommendation, the price target is $43.03 per share by the end of 2024, translating into a return of 55.73% and a BUY recommendation.

This price target was computed using the base scenario as we believe this case reflects the future of the company in such an uncertain and constantly changing industry. To give probability to the bullish and bearish scenario would only deviate from what we believe to be a good core forecast.

As a final note, we believe advertising is on a shift in all its levels and AdTech is right at the front on that shift. Some ideas and business will fail, and others will stick and growth a lot. By diversifying and trying to be the best in class in all the segments it innovates in, Perion will be able to guarantee a bite in the gigantic cake that Digital Advertising is. However, it is not because one rides the growing tide well that can avoid the storms, there are risks. At the end of the day, it is relevant to have a good boat to ride the volatile sea but to have a good sailor and crew is so or more important. Perion has been taking the right decisions to take on the unpredictable future and will continue to do so.

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FINANCIAL STATEMENTS

Income Statement

Display and Search Advertising	2023	2024	2025	2026	2027	2028	2029	2030	2031
Total Revenue	**756,460**	**863,773**	**1,055,654**	**1,190,874**	**1,363,244**	**1,505,722**	**1,683,134**	**1,809,438**	**1,968,221**
% growth	*18.1%*	*14.2%*	*22.2%*	*12.8%*	*14.5%*	*10.5%*	*11.8%*	*7.5%*	*8.8%*
Display Advertising	423,906	485,742	629,682	714,689	835,676	931,779	1,064,477	1,154,957	1,282,388
% growth	*17.5%*	*14.6%*	*29.6%*	*13.5%*	*16.9%*	*11.5%*	*14.2%*	*8.5%*	*11.0%*
Search Advertising	332,554	378,031	425,972	476,185	527,568	573,944	618,657	654,480	685,833
% growth	*19.0%*	*14%*	*13%*	*12%*	*11%*	*9%*	*8%*	*6%*	*5%*
Total Costs and Expenses	**636,031**	**720,790**	**873,979**	**977,185**	**1,117,022**	**1,232,609**	**1,376,536**	**1,479,001**	**1,607,815**
% of revenue	*84.1%*	*83.4%*	*82.8%*	*82.1%*	*81.9%*	*81.9%*	*81.8%*	*81.7%*	*81.7%*
Cost of Revenue	40,049	38,870	47,504	47,635	54,530	60,229	67,325	72,378	78,729
% of revenue	*5.3%*	*4.5%*	*4.5%*	*4.0%*	*4.0%*	*4.0%*	*4.0%*	*4.0%*	*4.0%*
Research & Development Expense	36,365	66,137	80,829	91,182	104,380	115,289	128,873	138,544	150,701
% of revenue	*4.8%*	*7.7%*	*7.7%*	*7.7%*	*7.7%*	*7.7%*	*7.7%*	*7.7%*	*7.7%*
Selling & Marketing Expense	64,201	69,102	84,452	95,270	109,059	120,458	134,651	144,755	157,458
% of revenue	*8.5%*	*8.0%*	*8.0%*	*8.0%*	*8.0%*	*8.0%*	*8.0%*	*8.0%*	*8.0%*
General & Administrative Expense	49,410	43,463	53,118	59,922	68,595	75,764	84,691	91,046	99,036
% of revenue	*6.5%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*
Traffic acquisition costs and media buy	429,743	487,492	595,784	672,099	769,380	849,791	949,918	1,021,201	1,110,814
% of revenue	*56.8%*	*56.4%*	*56.4%*	*56.4%*	*56.4%*	*56.4%*	*56.4%*	*56.4%*	*56.4%*
Depreciation & Amortization	16,264	15,727	12,292	11,078	11,078	11,078	11,078	11,078	11,078
% of revenue	*2.1%*	*1.8%*	*1.2%*	*0.9%*	*0.8%*	*0.7%*	*0.7%*	*0.6%*	*0.6%*
Core result before taxes	**120,429**	**142,984**	**181,675**	**213,689**	**246,222**	**273,113**	**306,598**	**330,437**	**360,405**
% growth	10.32%	18.73%	27.06%	17.62%	15.22%	10.92%	12.26%	7.78%	9.07%
Statutory Taxes	27,699	32,886	41,785	49,148	56,631	62,816	70,518	76,000	82,893
Core Tax Adjustments	-9,679	-11,492	-14,601	-17,174	-19,789	-21,950	-24,641	-26,557	-28,966
% of Core result before taxes	-8%	-8%	-8%	-8%	-8%	-8%	-8%	-8%	-8%
Core result	**102,409**	**121,589**	**154,491**	**181,715**	**209,380**	**232,247**	**260,722**	**280,994**	**306,478**
% growth	*7.3%*	*18.7%*	*27.1%*	*17.6%*	*15.2%*	*10.9%*	*12.3%*	*7.8%*	*9.1%*
Non-Core Business									
Financial income from deposits	6,337	6,086	6,489	4,797	3,628	3,577	2,288	2,466	2,207
% of short term investments	3.75%	3.25%	3.00%	2.75%	2.25%	2.00%	1.50%	1.50%	1.50%
Non-Core Result before taxes	6,337	6,086	6,489	4,797	3,628	3,577	2,288	2,466	2,207
Statutory Taxes	1,457	1,400	1,492	1,103	834	823	526	567	508
Change in foreign currency translation adjus	-	-	-	-	-	-	-	-	-
Unrealized gain (loss) from cash flow hedges	-	-	-	-	-	-	-	-	-
Reclassification adjustment for net gain (loss)	-	-	-	-	-	-	-	-	-
Non-Core Tax Adjustments	-	-	-	-	-	-	-	-	-
Non-Core Result	4,879	4,686	4,996	3,694	2,793	2,754	1,762	1,899	1,699
Financing									
Financial expenses from leases and debt	1,512	1,512	1,512	1,512	1,512	1,512	1,512	1,512	1,512
Financing Result before Taxes	**-1,512**	**-1,512**	**-1,512**	**-1,512**	**-1,512**	**-1,512**	**-1,512**	**-1,512**	**-1,512**
Statutory Taxes	-348	-348	-348	-348	-348	-348	-348	-348	-348
Financing Tax Adjustments	-	-	-	-	-	-	-	-	-
Financing Result after Taxes	**-1,164**	**-1,164**	**-1,164**	**-1,164**	**-1,164**	**-1,164**	**-1,164**	**-1,164**	**-1,164**
Total Result	**106,124**	**125,111**	**158,323**	**184,244**	**211,009**	**233,837**	**261,319**	**281,728**	**307,013**

FINANCIAL STATEMENTS

Balance Sheet

Display and Search Advertising	2023	2024	2025	2026	2027	2028	2029	2030	2031
Operating cash	45,388	51,826	63,339	71,452	81,795	90,343	100,988	108,566	118,093
% of revenue	6%	6%	6%	6%	6%	6%	6%	6%	6%
Accounts Receivable	173,509	198,123	242,135	273,150	312,687	345,367	386,060	415,030	451,450
Average collection period	84	84	84	84	84	84	84	84	84
Prepaid expenses and Other Current Assets	12,465	14,234	17,395	19,624	22,464	24,812	27,735	29,817	32,433
% of revenue	1.65%	1.65%	1.65%	1.65%	1.65%	1.65%	1.65%	1.65%	1.65%
Restricted Cash	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
% of revenue	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
Accounts Payable	169,609	192,565	234,055	262,008	299,881	331,187	370,168	397,920	432,809
Average payable period	99	99	99	99	99	99	99	99	99
Short-term Deferred Revenue	9,107	10,399	12,709	14,337	16,412	18,127	20,263	21,784	23,695
% of revenue	1.20%	1.20%	1.20%	1.20%	1.20%	1.20%	1.20%	1.20%	1.20%
Accrued Expenses and Other	52,443	59,882	73,185	82,559	94,509	104,387	116,686	125,442	136,450
% of revenue	6.93%	6.93%	6.93%	6.93%	6.93%	6.93%	6.93%	6.93%	6.93%
Other Current Liabilities	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
Net Working Capital	**-28,297**	**-27,163**	**-25,579**	**-23,177**	**-22,357**	**-21,679**	**-20,834**	**-20,233**	**-19,477**
Property, Plant & Equipment, Net	3,782	4,319	5,278	5,954	6,816	7,529	8,416	9,047	9,841
% of revenue	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Operating Lease Right of Use Assets	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Intangible Assets, net	68,962	78,745	96,237	108,565	124,278	137,267	153,441	164,955	179,430
% of revenue	9.12%	9.12%	9.12%	9.12%	9.12%	9.12%	9.12%	9.12%	9.12%
Goodwill	195,527	195,527	195,527	195,527	195,527	195,527	195,527	195,527	195,527
Deferred Tax Assets	6,624	7,864	9,992	11,753	13,542	15,021	16,863	18,174	19,822
% of income before taxes	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
Payment obligation related to acquisition	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
Core Business Invested Capital	**226,597**	**239,291**	**261,455**	**278,621**	**297,807**	**313,665**	**333,412**	**347,470**	**365,144**

Non-Core Business

	2023	2024	2025	2026	2027	2028	2029	2030	2031
Other Noncurrent Assets	49	49	49	49	49	49	49	49	49
Other Noncurrent Liabilities	11,783	11,783	11,783	11,783	11,783	11,783	11,783	11,783	11,783
Short-Term Investments	168,975	187,247	216,287	174,446	161,222	178,831	152,522	164,381	147,110
% of excess cash	150.00%	140.00%	140.00%	120.00%	110.00%	110.00%	90.00%	90.00%	80.00%
Non Core Business Invested Capital	**157,241**	**175,513**	**204,553**	**162,712**	**149,488**	**167,097**	**140,788**	**152,647**	**135,376**
Financial									
Excess Cash	**112,650**	**133,748**	**154,491**	**145,372**	**146,566**	**162,573**	**169,469**	**182,646**	**183,887**
% of core result	110.00%	110.00%	100.00%	80.00%	70.00%	70.00%	65.00%	65.00%	60.00%
Long-term debt, net of current maturities	0	0	0	0	0	0	0	0	0
Short-Term Lease Liabilities	3,000	3,000	1,500	1,000	1,000	1,000	0	0	0
Long-Term Lease Liabilities	5,000	5,000	3,000	2,000	2,000	1,000	1,000	1,000	1,000
Financial	**-104,650**	**-125,748**	**-149,991**	**-142,372**	**-143,566**	**-160,573**	**-168,469**	**-181,646**	**-182,887**
Equity	**488,488**	**540,552**	**616,000**	**583,705**	**590,861**	**641,335**	**642,670**	**681,763**	**683,406**

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Buy	Expected total return (including expected capital gains and expected dividend yield) of more than 10% over a 12-month period.
Hold	Expected total return (including expected capital gains and expected dividend yield) between 0% and 10% over a 12-month period.
Sell	Expected negative total return (including expected capital gains and expected dividend yield) over a 12-month period.

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