

Industry-Wide Application of Value Investing: A Comprehensive Analysis of Technology, Healthcare, Energy, and Catering Sectors

Mingfei Zhang *

School of Economics and Management, Beijing University of Posts and Telecommunications,
Beijing, 100876, China

* Corresponding Author Email: zmf18801041357@bupt.edu.cn

Abstract. Value investing has been proved to be a valid means to dive into deeper market, in order to find the intrinsic value. It is grounded in a long-term perspective, focusing on the fundamental aspects of a business, such as its financial health, management quality, competitive position, and growth prospects. On the basis of above information, this paper is going to talk about the practical investing behaviors in different industries, including the technology, healthcare, energy and catering industries, surpassing the dimension of theory. With the improvement of every industry, innovations and risks have been taken into consideration, directing investors to take promising or conservative methods. By applying the principles of value investing across different industries, investors can seek to build portfolios that are not only diversified but also grounded in the fundamental strengths of the businesses they invest in. In each of these industries, value investors must conduct thorough due diligence, analyzing financial statements, market positions, competitive advantages, and growth potential.

Keywords: Value Investing; Technology Industry; Healthcare Industry; Energy Industry; Catering Industry.

1. Introduction

Nowadays, the A-share market of the world has been affected by systemic macro factors such as the epidemic at home and abroad, the international risky situations, and the economic cycle. Thus, it is so necessary for investors to choose the most stable method while preventing and controlling risks, which is proved to be value investing. Value investing originated in the early 20th century, and it is still widely revered by investors around the globe. For a long time until now, the market often undervalues stocks, creating opportunities for investors to buy assets at a discount to their true worth.

Most studies discussed the typical theories of value investing, which focused on the theoretical approaches to apply in the investing process. Lee aimed to point out the history of value investing, and indicated that successful value investors look for not only “cheap” stocks but also “quality” stocks with strong fundamentals [1]. By reviewing Benjamin Graham’s stock screener, the author demonstrates how to identify quality companies using accounting numbers. An influential paper by Asness summarized several researches to overall provide investors with perspectives on using value stocks and momentum strategies to achieve excess returns. It firstly demonstrated that value investing is a long-term effective investment strategy while asserts that value investing is not solely achieved through concentrated investments, while diversified systematic strategies can also capture value premiums with lower risk and lower costs, introduces several academic papers on value investing [2]. Secondly, research suggests that investors often pay a high premium for growth stocks, and when the growth stock premium is high, value stocks may perform better [3]. Another paper studied the momentum investment strategy and found that it can improve the return-on-investment portfolios in various market environments [4]. Moreover, Roca made a systematic literature review of 400 papers ranging from 1965 to 2020 in the field of value investing, in order to identify four main research clusters: explanations for the value premium, anomalies research, momentum and fundamentals, and investment misconceptions [5].

To sum up, previous studies shed the light on the overview of performance and effectiveness in value investing, whereas the part of practical application has not been paid such a great attention as conceptual discoveries.

This paper will explore the further application of value investing in combination with stocks in different industries. And the ultimate investment will be in line with corporations' inner value via value investing, which is the primary reason for this research. The paper examines case studies from the technology, healthcare, energy and restaurant industries to illustrate the effectiveness of value investing. It also discusses the critical thinking behind value investing, its benefits, and potential drawbacks. The analysis is based on a review of classic literature and contemporary case studies, aiming to provide insights into the practical application of value investing and its relevance in today's market.

2. Technology Industry

2.1. Overview

As for this section, the paper will discuss the application of value investing in the technology sector, which is known for its rapid changes and high volatility due to the development of Internet and relevant technologies. It will review relevant literature that supports the use of value investing principles in this industry and present case studies of companies that have been successfully identified as undervalued by value investors.

Tracing back to the last decade, the swift ascent and abrupt decline of numerous stocks at the close of the 20th century prompted questions about the rationality of a stock market that seemingly placed a higher valuation on companies the more they incurred losses. A study of Kamssu et al. stated that in a bull market, the stock prices of internet companies grow rapidly, but the actual rate of return is lower [6]. In contrast, during economic downturns, the performance of internet companies may not be as good as that of non-internet companies. Therefore, compared to the traditional technology investment, it seems an urgent step for promoting the stock market via choosing a proper method to evaluate technology firms. Value investing has been verified to be the priority during the past time.

2.2. Case Study

Technology companies performed differently to great extent, and the investors should keep catching the dynamic situations in this flexible industry. To prove the efficiency of value investing, there are many researchers working out to find the most persuasive cases for supporting this way.

A study by Cui was published, summarizing the performance of top 5 tech corporations during the period from 2015 to 2021 in investment. The article specifically analyzes the data of five representative US technology companies (APPL, DELL, HPQ, CAJ, and HPE), assessing them from five aspects: profitability, valuation, growth, dividends, and returns. The author utilizes the value investing corresponding from five aspects, which are valuation analysis, profitability analysis, growth potential analysis, dividend analysis, and historical return analysis. Through valuation analysis, employing metrics such as Price-to-Earnings (P/E) ratio and Price-to-Book (P/B) ratio to assess a company's valuation and identify stocks that are relatively undervalued, it was simple to find that Apple has had the highest P/E ratio in recent years, while HP's P/E ratio has fluctuated significantly, indicating that its fundamentals are not stable. From the angle of profitability analysis, the gross margin was calculated, and they found that Apple and Canon have had the strongest profitability in the past few years, which may be attributed to their monopoly position in product markets. By analyzing the revenue growth rate, they found that Apple and Dell have had better growth in recent years, especially Apple's growth rate has been increasing. For the 4th part, Canon and HP have higher dividend yields, while Dell does not pay dividends, and Apple's dividend yield is below 1%. Through historical data analysis, the article reveals the reasons for changes in value and compares the various indicators of these five companies. It ultimately concludes that Apple has the best performance and is worth investing in; followed by Dell, which performs better than the other three. Therefore, it is

recommended that investment portfolios should include Apple and Dell, while excluding the other three [7].

2.3. Potential Risks in Value Investing

The firms in high-tech industry show a high volatility in stock return according to the previous analysis. High-tech companies tend to invest more in the R&D development, so as to improve the core competitiveness.

However, a study found that there is a positive correlation between the intensity of R&D investment in high-tech companies and the volatility of stock returns. The document mentioned that the R&D investment intensity of high-tech companies' stocks is positively related to both the total stock return volatility and the stock-specific return volatility, indicating that the higher the R&D investment intensity, the greater the volatility of stock returns [8]. What provokes us is that for companies with high R&D intensity, attention should be paid to their information disclosure to assess the degree of information asymmetry.

2.4. Summary

Value investing in the technology industry involves applying the principles of value investing in an environment of rapid change and high volatility. Owing to the development of the internet and related technologies, this industry presents unique challenges and opportunities. A review of literature and case studies shows that value investing in technology stocks is viable and promising. Looking at the experience of the past decade, the swift rise and sharp fall of technology stocks at the end of the 20th century raised questions about the rationality of the stock market, particularly for companies that seemed to gain higher valuations the more losses they incurred. However, value investing offers a more robust and rational approach to investing. By comprehensively assessing the profitability, valuation, growth potential, dividends, and returns of technology companies, investors can better identify stocks that are undervalued by the market.

3. Healthcare Industry

3.1. Overview

The healthcare industry, especially the pharmaceutical and biotechnology sub-industries, typically requires substantial R&D investment to develop new drugs and therapies. Value investors look for companies that can innovate continuously and have a strong R&D capacity, as these companies are likely to maintain a competitive advantage in the long run. Companies with comprehensive strength and overwhelming superiority in advanced technology will stand out from the crowd to gain more chances to develop.

Based on the paper of Yelnikova and Kwiliński, clear illustrations can be summed up systematically [9]. Private equity investment in value-oriented healthcare companies has surged, growing more than fourfold from 2019 to 2021, indicating that value-oriented healthcare has become a hot spot for investors. What's more, the growth momentum of value-oriented healthcare is strong, with corporate value expected to reach one trillion US dollars within the next five years. This growth trend is mainly due to the increasing acceptance of value-oriented healthcare by patients and the improvements made by providers in managing healthcare costs.

3.2. Case Study

Taking a panoramic view of today's uncertain economic environment, both the venture capital market and the healthcare industry are constantly iterating, with companies that focus on innovation continuously honing their resilience to cycle through periods of uncertainty and gaining attention and investment from capital. Despite the fact that various fields of investment, financing, and mergers and acquisitions were affected to different degrees in the first half of the year, the overall trend of the

healthcare industry is positive. Especially during the global pandemic period, value-based care investment quadrupled, with investors focusing on the construction of hospitals and seeking for more returns on enterprise value. Both the corporations and stakeholders initiate to grasp the market opportunities to enjoy the bonus of time.

What can persuade investors most is that a company's potential that shows gradually in the pandemic period. Pfizer (PFE) is one of the largest pharmaceutical companies in the world, specializing in the development and production of drugs for the treatment of various diseases such as cardiovascular diseases, cancer, and autoimmune diseases, as well as vaccines for the prevention of influenza, COVID-19, and other viruses. In the past few years of epidemic, Pfizer has devoted its all energies to develop drugs, and researchers investigated several hypotheses and potential approaches to both prevention and treatment, involving the vaccines and Paxlovid. Paxlovid has not only saved the lives of thousands of COVID-19 patients worldwide, but its sales have also accounted for 18.9% of Pfizer's total revenue in 2022, playing a crucial role in the development of Pfizer.

Following the COVID-19 pandemic, Pfizer experienced a significant boost in its fortunes due to the high regard for its vaccines, which were deemed superior. Thus, Pfizer's earnings skyrocketed. As for the value evaluation part, Bao analyzed the different aspects of the healthcare industry, choosing 3 pharmaceutical corporations to assist individuals in deciding which stocks to invest in, thereby enhancing their likelihood of beating the market [10].

Compared to other 2 companies (Walgreens and CVS), Pfizer's price-to-earnings ratio is less than 10 times, and its price-to-book ratio is slightly higher than 1, which meets the requirements of value investors looking for undervalued stocks, making it one of the ideal choices for value investors. In addition, Pfizer's dividend yield reached 4.55%, which is higher than 4%, in line with the demand of income investors for stable cash flow, making it one of the ideal choices for income investors. It has highest profitability, with its return on assets is as high as 8.5%, indicating that it has the strongest profitability and is more attractive to investors. Furthermore, Pfizer's beta value is the lowest among the three companies studied, reflecting that its stock price volatility is low and the risk is relatively small, which is in line with the preference of risk-averse investors. Pfizer also has \$5 million in insider buying, and that means company executives are optimistic about the company's prospects, which enhances investor confidence [10].

3.3. Potential Risks in Value Investing

Just like Pfizer, it is well-known for its improvement in R&D field with strong growth of earnings, it is confronted with great challenges right now, as the global health situation stabilized, this revenue stream naturally receded.

The healthcare sector is technology-intensive and science-driven, often involving cutting-edge technologies and medical research. Due to the uncertainty of scientific fields and the risks of technological innovation, investors need to conduct thorough due diligence on the scientific and technical feasibility of their investment projects. Additionally, research and commercialization in the healthcare sector typically require extended periods. From developing new drugs or medical devices to obtaining approvals and bringing them to market, it may take several years or even longer, which requests investors to have a long-term perspective and patience to wait for investment returns. What's more, with the aging population and the rise of chronic diseases, the healthcare industry faces significant market demand. Investors typically focus on investment opportunities related to aging-related medical services, innovative treatment methods, and health management and prevention.

3.4. Summary

Value investing in the healthcare industry, particularly in pharmaceutical and biotechnology sub-industries, requires identifying companies with strong R&D capacity and continuous innovation. These companies are likely to maintain a competitive advantage in the long run. The healthcare sector is technology-intensive and science-driven, involving cutting-edge technologies and medical research. Investors should conduct thorough due diligence on the scientific and technical feasibility of

investment projects and have a long-term perspective and patience for investment returns. Market demand is significant due to the aging population and the rise of chronic diseases, with investment opportunities in aging-related medical services, innovative treatment methods, and health management and prevention.

4. Energy Industry

4.1. Overview

Innovation and technological leadership are key to maintaining a competitive advantage in the energy industry, especially in the oil and gas and renewable energy sectors. Investors should seek out companies with strong R&D capabilities and a track record of continuous innovation. Particularly, Governments, corporations, and investors are increasingly focused on achieving carbon neutrality and reducing greenhouse gas emissions to combat climate change. This has led to a surge in investments in low-carbon technologies, such as hydrogen production, carbon capture, utilization, and storage (CCUS), and sustainable biofuels. Investors are aligning their portfolios with ESG (Environmental, Social, and Governance) principles and prioritizing investments in companies that are actively pursuing decarbonization strategies and developing innovative solutions to address climate-related challenges.

4.2. Case Study

Research of Glasgow gives a full picture of European energy sector's investment, covering the oil, gas, coal, electricity, nuclear, and renewable energy sectors from 2001 to 2022. Energy investment includes two major categories: fossil fuel companies and renewable energy companies. Fossil fuel companies have traditionally tended to be value stocks, while renewable energy companies have been more inclined towards growth stocks [11].

Value investment strategies are still very effective in the European energy market, especially value investment portfolios based on EV/EBITDA, which can achieve higher risk-adjusted returns. This strategy proves that value investment is still feasible in the European energy market. In recent years, renewable energy companies have started to emerge, especially in terms of risk-adjusted performance, surpassing fossil fuel companies. This indicates that investors have a first-mover advantage in the renewable energy sector, enabling them to gain greater profits. The European energy industry is undergoing significant transformation, with renewable energy gradually replacing fossil fuels. Investors can help these companies achieve low-carbon transition by investing in value stocks, thus incorporating ESG (environmental, social and governance) factors into their investments.

Overall, the European energy industry has great potential, and value investment strategies are still very effective in this field. Renewable energy companies also bring new opportunities for investors. Investors should pay close attention to the changes in the industry and use value investment strategies to achieve risk-adjusted excess returns.

4.3. Potential Risks in Value Investing

Energy companies are highly sensitive to fluctuations in commodity prices, such as oil and natural gas. Sudden changes in supply and demand dynamics, geopolitical events, and macroeconomic factors can lead to significant price volatility, impacting the profitability of energy companies. Energy companies face increasing scrutiny over their environmental and social practices. Concerns related to carbon emissions, climate change, and community relations can lead to reputational damage and regulatory penalties, affecting investor confidence and stock performance. What's more, energy markets are influenced by geopolitical tensions, trade disputes, and regional conflicts. Political instability, sanctions, and supply disruptions in key producing regions can disrupt supply chains and lead to price spikes, impacting the financial performance of energy companies.

4.4. Summary

Although there are some risks preventing development of the energy sector, it may offer long-term potential for investors with patience and a long-term perspective. Value investors can reap rewards by identifying undervalued energy companies and investing when market sentiment fluctuates. Nowadays, the energy industry is undergoing technological transformation, including an increase in renewable energy and clean technology. Value investors need to pay close attention to industry trends and identify companies that can adapt to technological change and have growth potential.

5. Catering Industry

5.1. Overview

Catering industry is a traditional and normal field to attract people to further the investing, as it is sustainable and promising for getting rewards. The demand in the food industry is usually unaffected by economic cycles, as people still need food during economic slowdowns or recessions. This makes food companies relatively resistant to economic downturns, which is attractive to value investors.

However, the industry has met some obstacles in the process. The same situation happened in the food chains as healthcare industry, the pandemic brought the danger to normal operation. On one side, public health mandates have diminished the number of patrons visiting eating establishments. Conversely, the ongoing virus situation heightens the risk of infection with each day's operations in the food service sector. Consequently, businesses and outlets within the catering industry face significant challenges in maintaining operations and creating earnings, potentially resulting in a decline of their overall worth. This erosion in the value of their stocks is a matter of concern both for the companies themselves and for those who invest in them.

5.2. Case Study

In the face of economic downturn, catering industry choose different strategies to protect themselves from suffering the negative effects. Taking Starbucks as an instance to prove the efficiency of value investing, by referring to the paper by He et al., and it will be clear for us to update and reshape the opinions on investment on food industry [12].

From the perspective of value investing, Starbucks' current ratio decreased from 219.8% to 106.3%, while quick ratio showed a declining trend (195.2% to 85.1%) from 2018 to 2021, which demonstrated that its short-term debt-paying ability has dropped. Moreover, during the 3 years, Starbucks' gross margin and net profit margin showed a declining trend. In 2018, they were 29.6% and 18.3%, respectively, and by 2020, they had dropped to 21.5% and 3.9%, respectively. This indicates that the pandemic has had a certain impact on Starbucks' profitability. Starbucks witnessed a decline in its cash flow ratio from 210% to 21.7%, while its cash reinvestment ratio plummeted from 55.2% to -1.5%. These figures point to a reduction in the company's financial flexibility over this period.

Starbucks has implemented various new initiatives to mitigate the impact of the pandemic. These measures have become important highlights for attracting capital, demonstrating the company's crisis response capabilities. During the pandemic, Starbucks provided a one-time subsidy of up to \$500 for employees facing financial difficulties. The humanitarian care measures have won a good reputation among staff and customers. For the market expansion part, Starbucks plans to expand its product portfolio and market, such as launching new products in emerging markets like China, to cater to the diverse needs of customers. Starbucks has a high market share and strong brand influence in the coffee industry, with high customer brand loyalty, providing a solid market foundation for the company. It actively shapes its corporate social responsibility image, and these measures have become significant highlights for attracting capital, demonstrating the company's crisis response capabilities [12].

5.3. Potential Risks in Value Investing

Disruptions in the supply chain due to weather events, political unrest, or other factors can impact operations and product availability. It can directly affect the food price. Fluctuations in food prices impact costs and profit margins, particularly for restaurants that rely on imported ingredients. Successful catering businesses often possess strong brand momentum and a high degree of standardization. Brand momentum refers to the brand's appeal and customer loyalty, while standardization relates to food quality control and service consistency. Higher standardization and a strong brand can give catering businesses an edge in expansion and market competition.

5.4. Summary

The catering industry, as a traditional and appealing field for investment, garners attention for its sustainability and profit potential. Despite the demand for food being generally unaffected by economic cycles, the industry faces challenges such as operational disruptions and public health restrictions due to events like the pandemic. Value investors considering investments in the catering sector need to be aware of factors such as supply chain disruptions, fluctuations in food prices, brand momentum, and standardization, while also assessing companies' abilities to respond to crises and their market expansion strategies. Although risks exist, businesses with strong brands and flexible coping strategies can maintain their competitiveness in the market. Obviously, for example, Warren Buffett, the renowned investment maestro, has a profound understanding and unique insight into the food industry, covering the Coca-Cola, as well as Kraft Heinz, a company formed by the merger of Heinz ketchup and Kraft Foods.

6. Conclusion

The research findings likely highlight the versatility and adaptability of value investing across various sectors. The case studies various fields, from the technology, healthcare, energy, and restaurant industries suggest that value investing can be effectively applied to identify investment opportunities in companies that are undervalued by the market but have strong intrinsic value. Whatever industry it is, investors ought to think comprehensively with different traits appearing distinctly, on ground of every company has own resilience to handle the threats.

The paper explores the methodology of identifying undervalued stocks, the criteria used to evaluate a company's inner value (such as price-to-earnings ratio, price-to-book ratio, and dividend yield), and the long-term investment horizon typically associated with value investing. Additionally, it would consider the risks and limitations of this approach, such as the potential for value traps (wherein an undervalued stock may not recover), and the need for patience and discipline as value investments may take time to materialize. Facing with the challenges unstable environment brings with, both internally and externally, investors must cultivate the calm attitude to avoid making knee-jerk reactions to market news or predictions.

Value investing in sectors such as technology, healthcare, energy, and catering requires a comprehensive assessment of a company's profitability, valuation, growth potential, dividends, and returns. In technology and healthcare, emphasis should be placed on research and development capabilities and sustained innovation. In the energy sector, investors should look for companies that can adapt to technological changes and have growth potential. In the catering industry, factors such as supply chain disruptions, fluctuations in food prices, brand momentum, and standardization, and other risks should be taken into consideration. Patience and a long-term perspective are necessary to seize investment opportunities amidst market fluctuations.

Given the case studies from multiple industries, a key direction could be the broader application of value investing across sectors. Additionally, the paper proposes that investors and analysts refine their methods for calculating intrinsic value to adapt to changing market conditions and new financial instruments. Furthermore, it may recommend further study into how value investing can be integrated

with environmental, social, and governance (ESG) criteria, as these factors are increasingly important to investors.

References

- [1] Lee, C. (2014). Value Investing: Bridging Theory and Practice. *China Account Financ Rev*, 16(5).
- [2] Asness, C., Frazzini, A., & Israel, R. (2015). Fact, Fiction, and Value Investing. *The Journal of Portfolio Management*, 42(1), 34-52.
- [3] Arnott, R. D., Li, F., & Sherrerd, K. F. (2009). Clairvoyant Value and the Growth–Value Cycle. *The Journal of Portfolio Management*, 35(4), 142-157.
- [4] Wang, J., Hou, Y., & Jegadeesh, N. (2014). Growth/Value, Market Cap, and Momentum. *The Journal of Investing*, 23(1), 33-42.
- [5] Roca, Florencia. (2021). what is New in Value Investing? A Systematic Literature Review. *Journal of New Finance*, 2(2), 2.
- [6] Kamssu, J., Reithel, J. & Ziegelmayr, L. (2003). Information Technology and Financial Performance: The Impact of being an Internet-Dependent Firm on Stock Returns. *Information Systems Frontiers*, 5, 279–288.
- [7] Cui, Q. (2023). Value Investing for Technology Companies. *Advances in Economics, Management and Political Sciences*, 15, 278-285.
- [8] Gharbi, S. & Sahut, M. & Teulon, F. (2014). R&D investments and high-tech firms' stock return volatility. *Technological Forecasting and Social Change*, 88, 306–312.
- [9] Yelnikova, J., & Kwiliński, A. (2020). Impact-Investing in the Healthcare in Terms of the New Socially Responsible State Investment Policy. *Business Ethics and Leadership*.
- [10] Bao, J. (2024). How Investors Choose Assets Among Pfizer, Walgreens, and CVS. *Highlights in Business, Economics and Management*, 24, 1088-1093.
- [11] Glasgow, K. (2022). Effectiveness of Value Investing in the European Energy Sector, Hanken School of Economics, Helsinki.
- [12] He, G., Xiang, S., & Yin, J. (2021). Corporate Value Investing Research in Covid-19 -A Case of Starbucks. *Advances in Economics, Business and Management Research*, 203, 2790-2796.