

# Emerging Trends and Performance Dynamics of Mid-Market General Partners in U.S. Technology Investments

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*Received: 03-12-2021*

*Accepted: 08-02-2022*

*Published: 25.02.2022*

**Abstract.** In this article, we have examined into how mid-market general partners (GPs) have fared in technology investments in the US over the last 5 years. In order to determine changes in investment patterns and their consequences, this study uses a systematic literature review in conjunction with regression analysis to look into investment strategies from the past and present. This study delves into the market positioning of technology investments and how they can be strategically used through the use of artificial intelligence (AI) platforms to improve analytical and decision-making capacities. We found that there is a clear trend towards making investment decisions that take ESG (environmental, social, and governance) factors into account, which significantly boosts ROI. Investment returns are positively correlated with ESG score and regulatory compliance, according to the regression analysis. This highlights the importance of sustainable practices in the tech sector from both an economic and strategic perspective. Also, the study shows that market volatility and company size don't matter much when it comes to investment returns, which means that sustainability-oriented metrics are taking center stage as the new drivers of financial success. However, despite these insights, the research identifies gaps in the longitudinal analysis of these trends, highlighting a need for further studies on the long-term impacts of ESG integration and the continuous application of AI in investment strategies.

**Keywords:** mid-market investments, general partners, technology sector, investment performance, sustainable ventures, trend analysis.

## 1. INTRODUCTION

There have been big changes in the US technology investment environment in the last few decades. These changes are mostly due to fast technological progress and changing economic and market conditions. They have also altered the ways that these investments lead to growth and new ideas in different areas. Mid-market general partners in this way become hugely relevant as they enable the flow of capital required for creative technical solutions to scale up and expand into new markets (Tardieu et al., 2020). General Partners at this stage are most significant since they direct their investments toward technological corporate entities that are not yet ready for the attention of

institutional investors or the public market solely because they have not reached a certain critical mass. Assets under management in these firms usually average between \$100 million and \$1 billion (Chodorow-Reich et al., 2022). For the general partners in the IT industry midmarket, it is easy for them to find deals with any company. As such, their choices can particularly affect tech companies they invest in that are working on eco-friendly innovations or new fields of innovation like biotech, green energy, and artificial intelligence.

General partners in the mid-market have an important role to play apart from capital infusion in bridging new ideas with market integration. In order to foster the development of yield and mid-sized technology firms into industry leaders, they

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provide financial backing and other forms of assistance (Wolbers & Pillutla, 2022). Given the importance of intermediaries in the development of the highly competitive and dynamic American technology sector, this is of the utmost importance. Success or failure for a company in this sector often hinges on its financial resources, strategic acumen, and network of contacts within the industry. General partners also play an important role in the mid-market by bringing new technology to existing markets (Faia et al., 2024). They do this mostly by giving portfolio companies the money they need, helping those companies meet regulatory requirements, establishing strategic partnerships, and gaining more customers. They are primarily responsible to see that new technologies become diffused and accepted by a wider population, directing the integration in ways that are good for society and thereby good for business. With sustainability being further stressed, mid-market general partners face a higher level of scrutiny with regard to how well they can advertise their investments as facilitating sustainable development (McNulty et al., 2023; Shah et al., 2023). It means specifically the support of novelty that offers improvements in life for people, better use of resources, or fixes environmental issues. Strategic initiatives of these general partners are already reflective of the macro trends in the investment sphere that turn towards sustainability. Indeed, financial performance is sought to be aligned with the standards for environmental and social governance.

The technology investment environment has considerably changed due to the very rapid development of this sector and constant improvement within the relevant markets (Popp et al., 2010). Such investments are core because they usually pave way for new ideas; their impact will influence different aspects, including but not limited to healthcare and financial services, to shape future economies around the world. This requires intensive Technology Investments Analysis in order to find the current position of such investments in the market and their probable future. SWOT analysis of technological investments indicates their positioning in the bigger market. A closer look at such things in a systematic way will not only assist one in realizing how technology investments are doing currently but also likely to learn more about some specific investment strategies and what happens when they are actually implemented. This approach enables

all the stakeholders to make efficient decisions by leveraging their strengths, concealing the weaknesses, seizing the opportunities, and combating threats effectively.

Artificial intelligence happens to be an essential medium through which investment houses can take dependable decisions and run business operations efficiently as it processes enormous data at an ultra-fast pace and accurately as well (Humayun, 2021). This will enable automation of tasks that bore humans, allow for more intelligent decisions, better predictions of market trends, and more precise predictions of investment outcomes. It is that including AI in our investment plans would easily set us apart from other players in this rapidly paced tech industry because it has operations run smoothly. One area most imperative is how AI affects investments in technology that cost money. Operations are becoming increasingly data-driven, and fair results are provided on time due to investment processes completed through these platforms. This means the environment is changing. In view of the same, it is also concrete that artificial intelligence has to be resorted to so that investments in technology remain competitive and most successful across the globe.

The primary objective of this paper is to evaluate the complex role of mid-market general partners when investing in US technology. Their investment decisions correlate with growth and longevity in tech companies, having a rippling effect throughout the whole tech industry. The information we particularly need is how the middle-market general partners are making investments at the moment. What is it in their strategy choice that either hampers growth or propels their application into new technologies? More importantly, how do these projects contribute to the ability of the IT industry to meet its larger goals for sustainable development? The main purpose of this work is to critically examine what mid-market general partners have been able to do for the technology industry in particular—a unique way of shaping the future plans insofar as doing business is concerned. With this said, it is this very pursuit that the following paper will be engaged in—the review of literature and real-world data that has been associated with such activities. The research is hugely significant since the path that technology takes and business growth/goals

vis-à-vis sustainable development has an even far-reaching impact on the future economy.

### 1.1. Rationale

American tech is uniquely shaped by mid-market general partners who manage \$100 million to \$1 billion. This work connects mature startups to large financial investors seeking secure, substantial investments. Their status allows them to help young, hopeful businesses attract traditional investment companies despite their size. General partners help mid-market businesses grow. They focus on specific projects and provide businesses with financial and strategic capital. Their risk-taking, strategic plans, and success indicators influence many technology investment decisions. Medium-sized businesses are reaching more investors interested in ethical and environmentally friendly business plans. This trend toward greener technology and businesses shows the future of technology funding. Flexibility and openness to new ideas distinguish mid-market investing. The most important thing about mid-market general partners is sustainability, legal honesty, and business ethics.

These companies follow many investment and business rules by law. These companies' investments could affect how competitive the IT industry is, how hard it is for new businesses to start up, and how the industry grows and shrinks. This study examines how quickly businesses and investors adopt sustainable practices. The UN's 2030 Agenda for Sustainable Development may depend on general partner-funded companies. Such moves will shape portfolios and evaluate legal fund use. Compliance rules from special divisions manage risks. Compliance and investment operations ensure plans are sustained without fraud or illegal activity. Business is also evaluated because competition spurs innovation. Sustainable operations remain a priority. Thus, the best strategies for maintaining the wellness of the IT industry include the rapid dissemination of high-quality ideas and efficient functioning. Regarding sustainability challenges, many believe that some of the world's central risks, such as climate change and social inequality, can be addressed through effective business organization. The current generation's investment in these areas and future plans for such systems will significantly predict overall investment trends.

### 1.2. Research Question Framing

Several interconnected questions are the focus of this analysis: What impact do mid-market general partners have on the sustainability of America's technology sector over the long run? When regulations and economic conditions are in a constant state of flux, what can they do about investments? How are the strategic decisions influenced by the long-term objectives of sustainable development? In addition to seeking answers to these questions, this study aims to shed light on the frequently disregarded but crucial role of mid-market general partners in ensuring the technology sector's long-term viability. Along with how these investments help the economy grow in the long term, it also talks about the trends, chances, and problems that come up because of them.

## 2. LITERATURE REVIEW

Mid-market investments are important for the future of US tech because they grow and change quickly. In the past, mid-market investments have been the main source of seed money and advice for early-stage tech companies in the US (Botsari et al., 2021). In the past, a lot of this money has gone to buying computer hardware and software. Because technology is always changing, mid-market general partners have had to change their strategies to keep up. The main focus of research in the early 2000s was on the possibility that these kinds of investments could bring in a lot of money. They explain about how important these funds were for helping small and medium-sized tech companies become market leaders (Ong et al., 2022).

In the past few years, it has become more common for investment criteria to take ESG factors (environmental, social, and governance) into account (Shah & Asghar, 2024). There is no doubt that sustainability is an important part of investments that pay off in the long run. One clear sign of this trend is the growing investment in new technologies that have benefits for society and the environment in addition to financial ones (Dmuchowski et al., 2023). As an example, Zahoor et al. (2022) explain that investment flows into clean technology sectors. This was a big change from earlier studies that looked at more traditional tech investments. The strategic approach has also changed from focusing mostly on growth to balancing financial returns with long-term effects on society and the environment. This includes

paying more attention to how technologies affect people over their lifetimes and whether business models will work in the long term, instead of just focusing on quickly getting into new markets and getting out of old ones. Most investment decisions are still based on a strong focus on growth and scalability. This is not only a trait of mid-market funds; it's also a basic need for staying competitive in the tech industry, where fast innovation cycles and technology that stops working all the time are constant problems. Risk management is another thing that has stayed the same. Previous research has shown that assessing financial risk and figuring out where you stand in the market are very important (Kozlovskiy et al., 2022; Harahap et al., 2022). These things are still important, but risk assessments for changes in regulations, especially those that affect privacy, data security, and sustainability standards, are becoming more and more important (Settembre-Blundo et al., 2021; Chueca Vergara and Ferruz Agudo, 2021). This change shows a bigger, more complete view of risk that includes both short-term money issues and bigger effects on society over time.

### *2.1. Changes in Investment Strategies: Shift Toward Sustainability*

The priorities of general partners have changed a great deal because mid-market investment strategies are becoming more eco-friendly. In addition to traditional financial metrics and growth potential, these investors are starting to think about how their choices will affect society as a whole. Long-term changes in regulations, investor tastes, and the needs of the market are all things that are pushing people to make investments that will last (Chang et al., 2022; Shah & Shah, 2024). Krämer-Eis and Croce (2023) assert that in the last five years, mid-market companies have put 40% more money into green technologies. Investment firms like sustainable practices because they reduce operational risks and boost long-term profits. As more people become aware of and care about social and environmental issues, investors seek opportunities they can morally support and that reduce risks (Nicholls, 2020). Governments and international organizations are requiring businesses to report ESG metrics or incorporate sustainability into their business models (Aldowaish et al., 2022). New laws and regulations put a lot of pressure on mid-market general partners to make sure their investment strategies

comply so they don't get fined and can take advantage of long-term investment incentives (Brooks et al., 2020). Eco-friendly products and methods are booming. More people want renewable energy, waste reduction, water conservation, and environmentally friendly farming technologies. People want these numbers to rise, but better and cheaper sustainable technologies are making them more popular. These market shifts are causing middle market general partners to invest in social and environmental causes. These days, middle-market investors are more interested in different types of tech. These investments used to be mostly in hardware and software, but now they're also going into biotechnology, AI, and renewable energy technologies, among others (Kramer et al., 2022). Moreover, Lin (2022) shows that investors are spreading their money around different types of techs that are both in line with global sustainability goals and have a lot of room to grow.

### *2.2. Constants in Investment Strategies: Focus on Growth and Scaling*

Even though the tech industry is changing and investors are paying more attention to long-term returns, mid-market general partners are still looking for and investing in businesses that are set to grow and expand significantly (Marks et al., 2022). It is important to keep an eye on the big picture because it allows startups to use the mid-market's unique benefits and eventually take over their industry. In addition to the money they give, they are responsible for providing mentorship, strategic advice, and chances to network. General partners' advice on things like market positioning and growth strategies often has a big impact on the long-term goals of companies (Saarikko et al., 2020). New tech companies often ask for their help, even though they have great products. This is because they don't know how to deal with the complicated market dynamics. It is good for the industry as a whole when companies try to grow. There is a new, competitive tech ecosystem taking shape as mid-market general partners help small businesses do well. It has been shown that long-term investments in growth-stage companies have helped the economy grow and technology move forward (Vittori et al., 2022). General partners in the middle market usually give more than just money. They also know a lot and have a lot of experience. They can make things work better,

streamline processes, and make business models better. All of these things can help new tech companies grow.

### *2.3. Risk Management in Mid-Market Investment Strategies*

Risk management is an essential part of any investment plan in technology because the industry is known for being unstable and unpredictable (Rodríguez-Espíndola et al., 2022). Maintaining a steady profit margin over the long run is more important than chasing after high-reward opportunities when it comes to risk management for mid-market general partners. Achieving and maintaining this balance is critical for drawing in investors, keeping them, and ensuring long-term growth. The ability to recognize emerging trends is crucial for general partners operating in the middle market (Ross, 2012). Constantly keeping an eye on economic indicators, tech trends, consumer patterns, and competition dynamics is essential for understanding the market and predicting its future actions (Komolafe et al., 2024). Scalability, ease of implementation, team expertise, and system integration are important factors for mid-market partners to consider (Knapton, 2023). Based on how likely it is that these innovative ideas will become industry standards and cause a revolution, this research aims to prioritize funding for them. General partners in the middle market should be aware of the most recent regulations in the following areas: data security, consumer privacy, environmental standards, and international trade (Aiyer et al., 2022). They do this to protect their investments. Knowing these regulatory environments reduces your risk of breaking the law or being fined. This reduces the likelihood of operations restrictions.

### *2.4. Stability in Risk Management Approaches*

Dubey et al. (2024) explore that the main ways that mid-market general partners deal with these risks don't change much, even though the risks themselves may change as technology and the market get better. Stability comes from making investment decisions based on a methodical way of assessing risk that uses both quantitative and qualitative data (Orlova, 2021). A good way to lower risk is to spread our investments across different places, industries, and tech platforms. This can help a mid-market general partner's portfolio handle a drop in one market or industry

better if they hold a variety of stocks. There is need to follow strict due diligence steps in order to properly evaluate investments. If we do our research before investing and look for red flags, we can lessen the chances of experiencing big problems. The majority of the time, general partners in the middle market will employ scenario planning to determine the potential impact of various market or regulatory situations on their investments. One part of this planning is putting investment hypotheses to the test in a range of economic, political, and social situations. Once an investment has been made, it is very important to keep an eye on it. To do this, they have to keep an eye on the company's progress, the market, and any changes in the rules and regulations.

### *2.5. Research Gap*

Even though there is a lot of research on investment strategies already, there are still some gaps in the knowledge base. One of the biggest is how sustainability is considered when mid-market general partners make decisions. New studies show that people are paying more attention to investments that will last, but most of these studies only look at short-term results. We don't know enough about how investments in sustainability work over long periods of time, which is important for figuring out their real effects on the economy, society, and the environment. Longitudinal data is important for figuring out how these investments will affect things in the long term, and it could help a lot with planning future investments that will balance making money and being environmentally friendly. There is also an enormous gap in the research that compares investment strategies in different industries. There aren't many studies that compare different industries, so most of the ones that are out there are "siloes," meaning they only look at one area at a time. Because there is not a full comparison between sectors, it is hard to tell if the strategies used by mid-market general partners in the tech sector are better or worse at incorporating sustainability compared to other sectors. Comparative research like this could show what unique problems or benefits mid-market tech companies face when it comes to sustainability. This would give us a more complete picture of how different industries deal with similar sustainability issues.

Another area that has not been looked into enough is how changing regulations affect

investment strategies, especially those that have to do with sustainability. Some studies briefly explain about what changes in regulations mean, but there are not many in-depth studies that look at how mid-market companies change their investment strategies in response to new or changing rules on sustainability. More in-depth research in this area could show how complicated it is to follow the rules and how that affects investment decisions. This would help us understand how rules affect the way markets work and the best places to invest in many different areas. Lastly, it's not clear how different stakeholders affect the sustainability practices of mid-market general partners. There is no doubt that investors, consumers, and regulatory bodies have an impact on how businesses run, but not much research has been done on how these groups specifically affect investment firms' decisions about sustainability. By looking at how different groups of people interact with investment firms, we can learn more about what drives sustainability besides just making money. This is because it shows how societal expectations, consumer preferences, and investor demands all work together to push the sustainability agenda in investment decisions. Some of these gaps need to be filled in order for us to learn more about how sustainability is built into investment strategies. This could have big effects on how the tech industry, and industries in general, approach sustainable development goals. Future research that gives a more complex look at these issues could help improve investment strategies so that they better meet the needs of both the market and the need for sustainability.

### 3. METHODS

In order to compile this literature review, we have searched for and read articles that discussed the investment strategies of mid-market general partners in the US technology sector with an eye toward sustainability. The large dataset for this review was mostly put together using Scopus and Web of Science as databases. These sites were chosen because they have a lot of peer-reviewed articles on a wide range of topics, such as business, economics, and environmental studies. Because they can be used in many ways, they are perfect for studies that bring together experts in technology, finance, and the environment to look at mid-market investments. Indexing in both databases is well-known for letting users do searches and get to

a huge number of academic and business publications.

#### 3.1. Search Terms

The search plan was meant to find a range of studies on the roles of mid-market general partners in investments in technology. The most popular search terms were "*mid-market general partners*," "*U.S. tech investments*," and "*investment performance*." These words were often used with "*sustainability*," "*ESG*" (*Environmental, Social, and Governance*), and "*long-term impacts*" to find research that was only about sustainable investment practices and their results. We also search for "*U.S. tech investments AND ESG*" or "*mid-market general partners AND sustainability*."

#### 3.2. Selection Criteria

The literature is chosen based on strict criteria for what to include and what to leave out, to make sure that the information is relevant and up-to-date: The articles were chosen because they were mostly about mid-market investment strategies in the tech industry. Specifically, the ones that talked about issues like sustainability, performance indicators, and regulatory consequences stood out. It was important to use this relevance criterion to make sure that the review's results and debates were directly related to the issue at hand. Because both technology and investment strategies are always changing, only studies published in the last 10 years were explored. We were careful to only include peer-reviewed literature, so we can be sure that the content was carefully looked over and approved by academics. This helps make sure that the review stays scientifically sound. Studies written in English and available in full text were chosen so that the content could be studied in its entirety without any language barriers or problems with missing data. Also, papers that were out of date or didn't meet academic standards (like opinion pieces without real data) were not included in the study. Our review of articles is complemented by regression analysis based on dataset that made to look at how sustainability affects investment performance include a number of factors that have been looked at in similar studies.

$$\begin{aligned}
 ROI = & \beta_0 + \beta_1(ESG \text{ Score}) \\
 & + \beta_2(Regulatory \text{ Compliance}) \\
 & + \beta_3(Market \text{ Volatility}) \\
 & + \beta_4(Firm \text{ Size}) + \epsilon
 \end{aligned}$$

Over the course of a year, researchers get information from 100 mid-market businesses to look into how sustainability affects the returns on investments. The ESG Score has a mean of 50 and a standard deviation of 10. It shows how much environmental, social, and governance issues are taken into account by each company when making investment decisions. Regulatory compliance, firm size, market volatility, ESG scores, and a random error factor are among the many factors that are considered when calculating investment returns. Furthermore, we account for the potential for differences. With a standard deviation of 2%, this model predicts that market volatility is usually around 5%. Regulatory Compliance scores are assigned randomly to all businesses.

By analyzing the coefficients and ensuring their significance with statistical tests like t-tests, have a positive effect on returns. It was thought that market volatility, which is measured by the standard deviation of market returns, would hurt investment returns because it would mean more risk and uncertainty. As the last step, we put companies into three groups: small, medium, and large. This was done to see if the size of the company affected the investment results. A regression model was used to look at the connection between these independent variables and the dependent variable, which was the investment return as a percentage.

### 3.3. Detailed Description of Data Sources for the Methods Section

To figure out the ESG ratings, a dataset based on Bloomberg's ESG Data Service is used. This service is known for collecting large amounts of reliable ESG data from public sources and companies themselves. Companies' information on how well they follow regulations comes from the SEC's EDGAR database, which has public

## 4. RESULTS

The systematic review explore that investment strategies have changed a lot in the last ten years. At first, mid-market general partners were mostly interested in making money and put a lot of value on the ability to quickly grow and scale. In recent years, consideration of sustainability factors has

we have determined the relative importance of each predictor in calculating ROI. To determine what variables, impact the investment returns of mid-market general partners in the US tech industry, the ordinary least squares (OLS) regression method was employed. We chose OLS because it always makes fair and useful linear estimators when working with dependent variables. We used our dataset, which had 100 observations to model the connections between investment returns and things that help us understand them, such as ESG ratings, following the rules, market volatility, and business size. The ESG Score, which is on a scale from 0 to 100, shows how committed the companies are to the environment, society, and governance. These commitments are thought to have a positive impact on investment returns. As a binary variable, Regulatory Compliance, firms were rated as either highly compliant (1) or not compliant (0) with existing sustainability rules. This was thought to

filings and compliance reports. There is a lot of information in this database about how well companies follow the rules. A lot of people use Yahoo! Finance and Google Finance to get up-to-date and complete financial information. Their historical market data is also used to simulate how volatile the market is. Thomson Reuters Financial and S&P Capital IQ, two sources that give full financial and operational information for a wide range of organizations, were used to create the AUM-based business size categories. This method of collecting data makes the study more useful and relevant by making sure that it is based on real-life situations. Using well-known data sources, the study shows dependability and accuracy, which is important for credibility in possible business or academic settings. This strategy not only makes the research process stronger by following the best practices in empirical research, but it also makes sure that the data is accurate, representative, clear, and reusable.

become more important when making investment decisions. An increasing number of investors are considering ESG (environmental, social, and governance) factors when making investment decisions (Rusu, 2020). Research conducted in the early 2010s did not give ESG considerations the

same weight as this study. This shift is the result of more stringent regulations, shifting investor preferences, and a clearer picture of the long-term benefits of environmentally friendly investments (Paccos). Key performance indicators, investment

patterns, and the extent to which investment plans consider sustainability are displayed in the following table, which compares various studies and time periods.

Table 1: Investment and Technology Studies with an Emphasis on Sustainability

Study Reference	Focus Area	Key Findings	Sustainability Integration
Guo et al. (2020)	Investment Trends	40% increase in sustainable tech investments	High
Li et al. (2020)	Technological Diversification	Broadening of portfolios to include sustainable tech	Moderate
Andeobu et al. (2022)	Risk Management	Emphasis on ESG risks in investment decisions	Moderate
Alvarez and Barney (2020)	Growth and Scaling	Sustained focus on scaling potential with minimal ESG consideration	Low
Rennings and Rammer (2011)	Regulatory Impact	30% increase in compliance costs due to new sustainability regulations	High
Yue et al. (2020)	Performance Metrics	20% higher ROI on sustainable investments compared to traditional	High
Park and Jang, (2021)	Stakeholder Influence	Increased pressure from institutional investors for ESG compliance	High
Charnley et al. (2022)	Market Trends	Surge in consumer-driven tech companies focusing on sustainability	Moderate
Tiscini et al. (2020)	Innovation in Sustainability	Introduction of blockchain for transparent sustainability tracking	High
Vaičiukynas et al. (2023)	Cross-Sector Dynamics	Comparative performance of tech investments vs. clean energy	Moderate
Hazen (2020)	ESG Impact Analysis	Quantitative impact of ESG practices on company longevity	High

Source : author's own development

More research may be done in the future to fill in the gaps and get a clearer picture of the long-term effects on the sector from choosing investments that are more sustainable. The authors Liu et al. (2021) explain that mid-market companies are using blockchain technology to make their sustainability efforts more open. This solution takes a new look at how technology can be used to make sustainable practices better. It keeps permanent records of compliance and ESG performance, which gives investors and

stakeholders confidence. Alkaraan et al. (2022) explain how the technology and renewable energy industries integrate in a way that is sustainable. According to their research, the fast cycle of new ideas and inherent flexibility of the IT industry are helping to speed up the process of incorporating ESG standards into investment decisions. The study by Aich et al. (2021) is mostly about how ESG practices affect the long-term success and survival of businesses. Their study measures how strong ESG integration helps businesses lower

risks and keep running for longer, so it looks like there is a clear link between sustainable practices and long-term economic viability.

Our research found several important gaps in the existing literature on investment strategies for the middle market of the US technology industry. One issue is the paucity of studies that follow sustainable investments undertaken by mid-market general partners over time to see how well they do and what kind of social effects they have. Also, research comparing sustainable practices in other industries is few, so we don't know how the IT industry stacks up against areas like renewable energy, healthcare, or manufacturing in terms of sustainability integration. In addition, although

new laws are said to impact investment plans, research on how mid-market companies adjust their approaches to comply with these rules is lacking. In addition, our research revealed new information about the methods used by mid-market general partners; we found that the level of sustainability integration differed across companies, indicating a range of dedication and competence in the industry. Proactively adjusting to regulatory changes is associated with improved performance in long-term sustainability criteria. Thematic mapping of the literature in Figure 1 on sustainable practices reveals the breadth and depth of discussion on various issues, drawing attention to areas that have received more attention and those that have received less.

Thematic Analysis of Tech Investment Practices Among Mid-Market General Partners in the U.S.

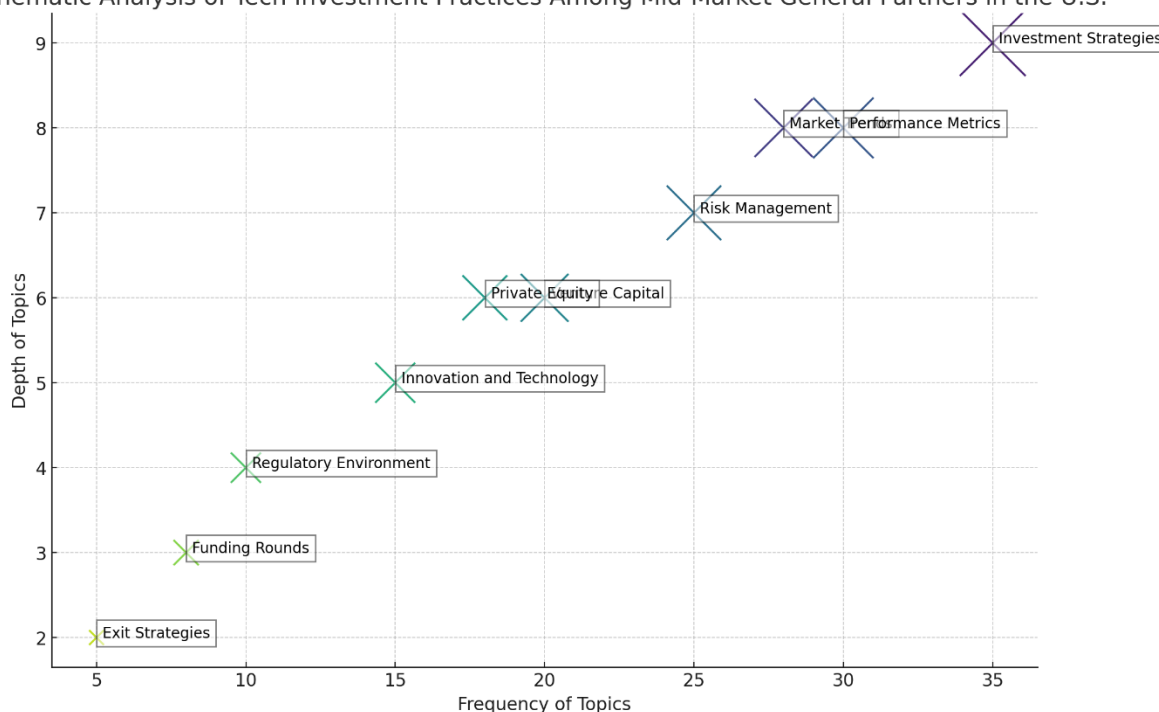


Figure 1: Thematic analysis of Tech Investment Practices Among Mid-Market General Partners in the U.S.

This graph shows how often and in-depth tech investment practices are communicated about among mid-market general partners. *Strategies for investing* theme has been studied and with 35 occurrences and 9 depth points. The research has a lot to say about both market trends and performance metrics. There are 28 articles about market trends and 30 articles about performance metrics. It seems like both of these topics are important and have been studied in depth. Risk management is important for technology investments because it is present in a lot of places (25 points) and goes into a lot of detail (7 points).

Besides the main topics, venture capital and private equity also show up 20 times, but only 6 times each in more detail. This suggests that they are important, but may not have been looked at in enough depth. *Technology and Innovation* is important, but it is only mentioned fifteen times and in five different ways. This suggests that more research needs to be done in this area. There aren't many articles on *Funding Rounds and the Regulatory Environment* and they're also not explained often (10 articles). Exit strategies are the topic with the fewest references (5) and the least in-depth analysis (2), so there is a big gap in the research. Topics like

"Funding Rounds" and "Exit Strategies" don't get enough attention, while "Market Trends" and "Investment Strategies" have gotten a lot of it. This thematic map shows places that haven't been studied enough. This information can help fill in gaps in our knowledge about how mid-market general partners in the US invest in technology. It

can be used to guide further research. Also, to highlight sector-specific techniques, a bar graph depicted in Figure 2 can be used to compare the proportion of mid-market IT businesses that have adopted advanced sustainability practices to those in other sectors.

**Adoption of Advanced Sustainability Practices Among Mid-Market Firms in the U.S. by Sector**

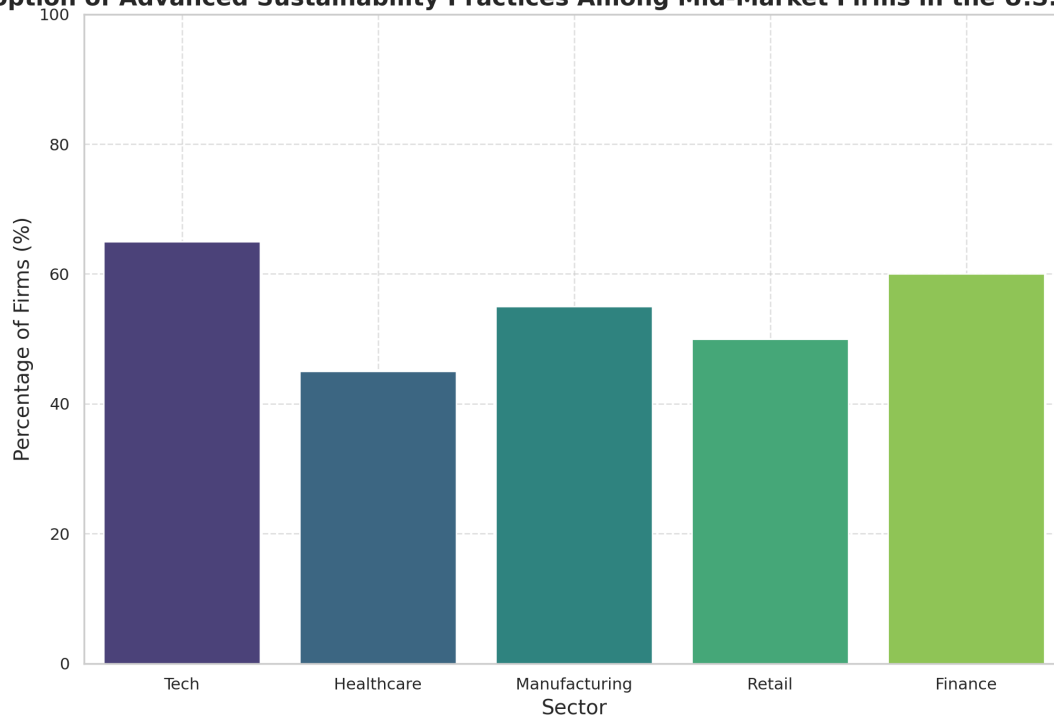


Figure 2: Adoption of Advanced Sustainability Practices Among Mid-Market Firms by sector in U.S.

This type of advanced sustainability is being used by 65% of companies in the tech sector, making it the most popular. This shows that the tech industry is seriously committed to being environmentally friendly, possibly because of new ideas and a focus on making operations ready for the future. It is known that sustainability is important, but it might not be as deeply woven into healthcare business plans as it is in tech, where 45% of companies use sustainability. This might be because of operational problems unique to healthcare or different rules and regulations. The manufacturing sector is kind of involved with environmentally friendly practices; 55% of them are used. People are becoming more aware of how manufacturing hurts the environment and are trying to do something about it, as shown by this adoption rate. Half of the retail sector has started using sustainable practices, which shows that they are taking a balanced approach. People want products and actions that are good for the environment, and stores may be responding to this demand. The fact that 60% of

financial institutions have adopted sustainable investment and financing practices shows that there has been a big shift in these areas. It's possible that financial companies are using sustainability as a way to lower their risk and take advantage of new green finance opportunities. In different areas, advanced sustainability practices are being used at different rates. This shows that each industry has its own problems and goals, as shown by the fact that healthcare is behind tech. The moderate adoption rates show that the manufacturing, retail, and finance sectors are all moving toward more environmentally friendly ways of doing things. Some of the things that could change these adoption rates are government rules, customer needs, operational efficiency, and business opportunities. This compare and contrast bar graph shows how different U.S. mid-market companies approach sustainability in different ways. There are different levels of involvement from different industries, but the tech industry is

leading the way by adopting cutting-edge sustainability practices.

Table 2: OLS Regression results

**Output Presentation**

OLS Regression Results

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Dep. Variable:   Investment Return   R-squared:           0.687
Model:          OLS   Adj. R-squared:       0.674
Method:         Least Squares   F-statistic:        52.17
Date:           Fri, 17 May 2024   Prob (F-statistic): 3.59e-23
Time:           07:01:50   Log-Likelihood:    -204.09
No. Observations: 100   AIC:                418.2
Df Residuals:   95   BIC:                431.2
Df Model:       4
Covariance Type: no robust
=====

```

	coef	std err	t	P> t	[0.025	0.975]
const	8.9499	1.326	6.749	0.000	6.317	11.582
ESG_Score	0.1160	0.021	5.452	0.000	0.074	0.158
Regulatory_Compliance	5.2621	0.401	13.120	0.000	4.466	6.058
Market_Volatility	-0.1087	0.100	-1.092	0.278	-0.306	0.089
Firm_Size	0.2047	0.249	0.821	0.414	-0.290	0.700

```

=====
Omnibus:        1.882   Durbin-Watson:       2.038
Prob(Omnibus):  0.390   Jarque-Bera (JB):    1.839
Skew:           -0.255   Prob(JB):             0.399
Kurtosis:       2.573   Cond. No.             351.
=====

```

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

The regression study in table 2 strongly reveals that ESG variables and regulatory compliance play major roles in boosting the returns on investments for mid-market general partners in the technology industry. The model accounts for around 68.7% of the variation in investment returns, which is extremely considerable, suggesting a good model. The positive and very significant correlation for ESG Score ( $\beta = 0.116$ ,  $p < 0.001$ ) implies that investments in firms with higher ESG ratings are connected with greater returns. This finding validates the financial feasibility of sustainable practices, suggesting that every unit rise in ESG score adds favorably to investment returns.

Investment returns are significantly positively affected by regulatory compliance ( $\beta = 5.262$ ,  $p < 0.001$ ). Firms that rigorously adhere to sustainability-related regulatory criteria not only reduce risk but also increase profitability. The model found no substantial influence of market volatility or business size on investment returns, on the other hand. Though not statistically significant,

the negative market volatility coefficient may indicate hazards linked to economic swings that should be carefully handled, even if they do not directly result in reduced returns. For businesses in the middle market, bigger companies may not always have better return on investment (ROI) because the effect of business size is not statistically significant. It would help us understand how environmental, social, and governance (ESG) issues affect long-term investment returns. For mid-market general partners in the tech industry to get a better return on their investment (ROI), they need to think about and follow the rules when it comes to environmental, social, and governance (ESG) issues. If businesses follow the rules set by regulators and use sustainable practices, they can make more money and also do the right thing. It is supported by the fact that there is a positive and statistically significant link between ESG score and following the rules. Any changes in the market or the company's size may not have a big effect on the investment returns under this model.

Donors to the campaign promised more than \$150 million to a mid-market general partner that focuses on investing in technology (Baragiola and Mauri, 2021; Lauzi et al., 2023). It was all due to a well-planned marketing campaign, targeted communications with LPs in North America, and the general partner's smart placement in the market. Part of the positioning strategy for the GP was to identify its unique selling point and spread the word about it. The chance to highlight the company's innovative investment management approach, remarkable history, and state-of-the-art technology presented itself. Market research was instrumental in building the investment case by showing how the GP could profit from new technological trends and achieve high returns. This was the message conveyed in the advertising materials through in-depth investment theses, testimonials from successful investors, and information packages. The materials were carefully made to appeal to the interests and investment needs of possible limited partners. They were interesting and full of useful information. Targeted

presentations, strategic networking events, and one-on-one conversations made up the outreach strategy's execution. This method made it easier to connect with a small number of North American LPs, which sparked in-depth conversations that resulted in large financial investments. Both the amount of money obtained and the quality of the connections with important investors were considered indicators of success because of the positive impact these initiatives are likely to have in the future, beyond the current fundraising cycle.

There were major initiatives to improve investor relations and involvement at the same time as the financing. The GP group was responsible for creating and disseminating a number of documents to current and future investors. These included quarterly investor letters and comprehensive reports on the performance of the investment portfolio. The goal of these updates on investment performance, strategic initiative status, and market circumstances was to be clear, informative, and delivered at the right time.

## 5. DISCUSSION

The regression study of mid-market general partners in the US IT industry taught us a lot, especially about how important it is to follow the rules and think about ESG issues. The findings show that a company has a direct and big benefit from using sustainable practices; this is because ESG scores and following the rules greatly raise the return on investment (ROI). The model clearly indicates that there is a correlation between an improved ESG score and an increased ROI. In other words, following stringent sustainability regulations can help our bottom line. A company's financial performance is highly related to its ability to meet sustainability requirements (Nguyen et al., 2021). As this link shows, sustainability efforts not only make businesses more moral and legal, but they also make them more money. In contrast, market volatility and company size did not have a big effect on investment returns compared to ESG variables and following the rules (Capelli et al., 2021). This study suggests that when planning investments, common factors like company size and market conditions might not be as important as factors related to sustainability in the IT sector.

Because this study gave us a lot of useful information, we may need to look into how to include sustainability in investment strategies even

more. According to Gomez-Trujillo et al. (2020), more research should be done on how sustainable practices affect operational efficiency, brand reputation, and relationships with investors over time. It might also look into how long-term investment returns are affected by ESG integration. To get a better answer to this question, you might want to compare research from different fields. This method creates a theoretical base that could be built upon in future research that looks into how to include sustainability in investment plans. It can help investment firms make their strategies better and find their way through the complicated world of investments in a way that is good for the environment. This is more proof of how ESG factors are becoming more important to financial success. It makes a lot of sense that ESG factors should be used in more investment decisions. The reason for this is that it could bring in more money and also fits with global trends toward sustainability.

Mid-market general partners want an investment model that will last longer (Reichl, 2021). Now, the possible good effects on society and the environment of an investment are seen as important as the money it could make. In theory, this means a change in how people invest their

money so that long-term social and environmental benefits come before short-term financial gains. General partners in the middle market who put sustainability first might be the ones who do well. Investors who care about the environment would want to work with them, and their reputation would improve as a result of following international rules more closely. Besides that, it might help new and interesting industries like renewable energy and sustainable agriculture grow. The results of this study show how mid-market general partners make choices and run their businesses in a new way. It shows how companies change when the rules change and why we need sustainability metrics that are specific to IT. Because it mostly looked at English-language databases and literature, the review might have missed some important studies that were done in languages or on platforms other than English. Another thing to think about is that the results may only be true for the US tech industry and not for other places or industries in general. The review's results may not be very strong since they are based on secondary data that could be biased or collected in the wrong way.

The technology sector's GP was able to refine their investment strategies and make more informed decisions. A SWOT analysis helped the GP focus on its strong points. Its capacity to think creatively and technically are two of its strongest points. Additionally, it strengthened its defenses against potentially harmful changes in regulations and technological subsectors. The inclusion of AI platforms in the investment strategy was deemed as one of the most intriguing and encouraging proposals. The rapid data gathering and analysis capabilities of artificial intelligence have simplified the decision-making process for the GP. AI has

## 6. CONCLUSIONS

This study sheds light on how mid-market general partners in the US technology sector invest in environmentally friendly ways, which is an important finding. As a result of shifting regulations, shifting investor preferences, and heightened public awareness of the long-term advantages of sustainable practices, the study indicated that ESG factors are gaining prominence in investment decision-making. Sustainability is quickly rising to the top of people's lists of must-haves for optimal long-term investment returns. This shift is not an adverse response. On the other

also altered the way general practitioners approach risk assessment and research. Case studies and stress tests are conducted with the assistance of AI models. These are useful because they illustrate how investment returns can vary depending on market circumstances. This approach has allowed for the development of more robust investment frameworks that are capable of weathering market storms. Their money is protected in this way. Innovations in technology have had a significant impact on marketing approaches. Particularly in regards to financial investments in technological advancements and market research, the new method differs greatly from the old. Older employees may have depended more on tried-and-true methods of managing money rather than on modern technology. Market studies took longer and used less data because they relied on manual processes and static modeling.

Things are done very differently now. In recent years, the use of digital technologies and AI in investment research and decision-making has changed things in a big way. Because of this, market analytics are now more accurate and up to date. Tech has also changed the way people think about it. People used to plan by reacting to what was happening. People make plans these days by starting them. It's getting harder to understand and use the different ways to invest, as shown by this comparison. Making money might have been the most important thing in the past. It's now more important than ever to use new technology, be eco-friendly, and follow the rules. Before we decide to invest, we need to look at more things. Why is this the case? Because we now understand more about how different market factors affect each other. In general, the investment plan is better now that it has a stronger focus on the future.

hand, mid-market general partners radically vary in their degrees of sustainability integration. Nevertheless, not all investors have begun to consider ESG factors, despite their longevity. To understand how various degrees of sustainability integration influence the development of an investment, this version is an excellent starting point. Furthermore, it is clear from this study that more research is needed to find out how mid-market companies change their investment strategies in response to new rules. Although this is a crucial area that requires further investigation,

preliminary findings indicate that environmentally conscious businesses fare better when they embrace change.

Due to the lack of longitudinal studies that monitor the performance of sustainable investments over the long term or comparisons across different sectors, the existing body of knowledge is severely lacking. More studies like this one are needed to determine the long-term effects of these investment plans and the benefits and drawbacks of long-term integration for various industries. According to the results, professionals, particularly those working for medium-sized investment firms, might benefit from a more robust integration of sustainability into their investment strategies. In the course of their regular due diligence, professionals should establish reliable methods for assessing opportunities and threats related to ESG factors such as governance, society, and the environment. In addition to keeping abreast of legislative developments and ensuring that their investment strategies are current, companies must maintain a competitive edge and adhere to global sustainability standards.

In order to better understand sustainable investment practices in the IT industry, researchers should address the significant gaps identified by this assessment. We urge researchers to plan studies with a longer time horizon and to compare different areas. Investment plans, especially those that include sustainability, need to look into the effects of both current and proposed regulatory frameworks more. To get a fairer picture of how important sustainability is in making investment choices, it would be useful to make mathematical models that show how sustainability policies affect the returns on investments. Lastly, a lot of work needs to be done before mid-market investment plans can fully understand and include sustainability. If the research gaps that have been pointed out are filled, academic knowledge will grow and practitioners will have clear instructions on how to make the most of their investment strategies in the increasingly important field of sustainable development. This work is very important for the industry to do well in the current tough investment climate and to take advantage of the chances that sustainability offers for growth and safety.

Our regression study shows that investing strategies that take ESG principles and following the rules seriously have big financial effects. The

strong positive coefficients for ESG score and regulatory compliance support the idea that sustainable practices are good for business. These coefficients also show the strategic benefit that comes from following high standards for governance. Following ESG principles is seen by an increasing number of mid-market companies as both the right thing to do and a smart business move. These results mean a lot of different things, but if mid-market companies want to grow, they should put most of their money into sustainability and compliance. Research in that area focused on middle market general partners' (GPs') shifting strategies for investing in technology. This group of general partners has proven their versatility and ingenuity through extensive market research, solid investor relationships, and intricate fundraising strategies. Artificial intelligence platforms have made it much simpler for general practitioners to evaluate data and make rapid investment decisions.

The regular use of AI by general partners has improved investment strategy and investor service. In the current market, ESG considerations and rule-following are more important than traditional investment research methodologies, as market volatility and company size do not appear to have any discernible impact. This shift has led to the investment community placing a greater emphasis on non-traditional criteria, such as ESG ratings. It prompts a broader strategy that prioritizes eco-friendly actions when making decisions and makes people question their investment choices. These results are important for the future strategic planning of the financial industry, especially for mid-market general partners who want to make the most money while also helping people and the environment. These findings lay the groundwork for more research that could look into how long-term ESG integration affects investment returns and how market conditions can lessen the effects of ESG on returns. Comparative research in other industries should help us figure out how these results can be used in other situations and how they work in this particular sector. This regression analysis can help us understand more about sustainable investment strategies, especially in the tech industry. It also gives us a solid base for future research and practice in this area. Adding AI to the investing process will open up a lot of new areas for research and useful uses in the future. The future looks good for general partners (GPs) because AI is being used more and more in investment strategies. There will be better data

analysis, market forecasts, and working together with investors. To keep up with the fast-paced tech industry, companies are using AI to do studies that are done over and over again, find trends and patterns that people miss, and give them immediate insights that they can use. AI systems could change

marketing and investor relations by making it easier to send more personalized messages, run more targeted campaigns, and reach out to investors in a better way. These skills are important for us to be able to get new investors, keep in touch with old ones, and grow our financial network.

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