

## Retail Investor Protection in the Age of Digital Trading: Regulatory Challenges and Solutions

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### Abstract

The research analyzes the regulatory challenges posed by these platforms and to develop effective solutions. The study examines existing regulatory frameworks, such as the Dodd-Frank Act, MiFID II, and the Commodity Exchange Act, as well as market data on trading behaviors and feedback from retail investors and regulatory bodies. Key findings include the identification of significant regulatory gaps, particularly in the areas of anti-money laundering (AML) and know-your-customer (KYC) requirements, and the lack of clarity in the classification of digital assets as securities or commodities. The significance of these findings lies in their implications for enhancing investor protection and market stability. The broader implications suggest that a more integrated and technology-driven regulatory framework could enhance transparency, prevent market manipulations, and ensure a level playing field for all market participants. This research contributes to the ongoing discourse on digital asset regulation, to safeguard retail investors in the digital trading era.

**Keywords:** Retail Investor Protection, Digital Trading Platforms, Regulatory Challenges, Financial Technology (Fintech), Anti-Money Laundering (AML), Know-Your-Customer (KYC), Algorithmic Decision-Making, Cryptocurrency Regulation

#### APA Citation:

Kozimov, N. (2024). Retail Investor Protection in the Age of Digital Trading: Regulatory Challenges and Solutions. *International Journal of Law and Policy*, 2(11), 16-28. <https://doi.org/10.59022/ijlp238>

## **I. Introduction**

The advent of digital trading has revolutionized the financial landscape, offering retail investors unprecedented access to a wide array of financial instruments and markets. However, this increased accessibility has also introduced a myriad of regulatory challenges that pose significant risks to retail investor protection. The rapid evolution of digital assets, including cryptocurrencies and other forms of digital securities, has outpaced the development of comprehensive regulatory frameworks. This disparity has created an environment where regulatory gaps, particularly in areas such as anti-money laundering (AML) and know-your-customer (KYC) requirements, threaten the stability and integrity of financial markets (Miao, 2024).

The research problem at the heart of this dissertation is the need to identify and analyze these regulatory challenges and their impact on retail investor protection. Specifically, the study aims to explore how existing regulatory frameworks, such as the Dodd-Frank Act, MiFID II, and the Commodity Exchange Act, address or fail to address the unique issues presented by digital trading platforms. Additionally, the research will examine market data on trading behaviors and gather feedback from retail investors and regulatory bodies to understand the practical implications of these regulatory challenges. The main objectives of this research are to conduct a thorough analysis of the current regulatory landscape, identify significant regulatory gaps, and develop effective solutions to enhance retail investor protection.

This involves a detailed examination of the role of technology in ensuring compliance, the challenges posed by over-the-counter (OTC) markets, and the evolving regulatory landscapes for cryptocurrencies and other digital assets. The study also seeks to provide recommendations for policymakers and regulatory bodies on how to create stable market conditions and mitigate risks associated with digital assets. The significance of this research lies in its potential to contribute to the ongoing discourse on digital asset regulation and its implications for market stability and investor protection. By providing a comprehensive analysis of the regulatory challenges and proposing adaptive regulatory measures, this study can help policymakers and regulatory bodies in their efforts to safeguard retail investors in the digital trading era. This is crucial both academically, as it advances the understanding of regulatory dynamics in digital markets, and practically, as it offers actionable insights for enhancing investor protection and market stability.

## **II. Methodology**

To address the complex regulatory challenges posed by digital trading platforms, this dissertation employs a multi-faceted methodological approach that integrates both quantitative and qualitative research techniques. The study begins with a comprehensive review of existing regulatory frameworks, including the Dodd-Frank Act, MiFID II, and

the Commodity Exchange Act, to identify gaps and inconsistencies in current regulations. This is supplemented by an analysis of market data on trading behaviors, which involves examining transaction records and trading patterns to understand the impact of digital trading on retail investors. Additionally, the research 3 incorporates feedback from retail investors and regulatory bodies through surveys and interviews, providing rich contextual insights into the practical implications of these regulatory challenges. The quantitative aspect of the study involves statistical analysis of market data to identify trends and patterns that may indicate regulatory gaps or areas of risk for retail investors.

This includes using advanced statistical models to assess the impact of high-frequency trading and algorithmic decision making on market volatility and investor outcomes. Conversely, the qualitative component involves in-depth interviews with retail investors to understand their experiences, perceptions, and concerns regarding digital trading platforms. This qualitative data is analyzed using thematic analysis to identify common themes and issues that are not captured by quantitative methods. Furthermore, the study conducts a comparative analysis of global regulatory practices to identify best practices and potential solutions that can be adapted across different jurisdictions. This involves a detailed examination of regulatory approaches in various countries, such as the EU's Digital Operational Resilience Act (DORA) and the UK's regulatory framework for digital assets, to understand how different regulatory environments impact retail investor protection. Overall, this integrated methodological approach ensures a comprehensive understanding of the regulatory challenges and solutions necessary to enhance retail investor protection in the age of digital trading.

### III. Results

The emergence of online trading platforms has fundamentally democratized financial market access, allowing individual investors unprecedented opportunities to engage in trading activities. However, this technological revolution has simultaneously introduced complex regulatory challenges that traditional frameworks struggle to address. The research highlights a critical information asymmetry problem, where less experienced investors often lack the sophisticated knowledge required to navigate increasingly complex digital trading ecosystems effectively.

Technological advancements, particularly algorithmic and high-frequency trading, have profoundly impacted retail investor experiences. These sophisticated trading mechanisms create substantial market volatility and information disparities that disproportionately disadvantage individual investors. The literature indicates that while digital platforms offer lower transaction costs and increased market accessibility, they simultaneously expose investors to heightened risks of market manipulation and rapid value fluctuations. Regulatory bodies like the SEC have attempted to respond through initiatives such as the Regulation Best Interest, but research suggests these interventions remain insufficient in comprehensively addressing the multifaceted challenges presented

by emerging digital trading technologies (Arrieta et al., 2020).

The significant gaps in anti-money laundering (AML) and know-your-customer (KYC) requirements across digital trading platforms. Particularly in emerging digital asset environments like the metaverse, regulatory frameworks struggle to establish clear guidelines and enforcement mechanisms. The research highlights ongoing legal disputes, such as the Crypto.com lawsuit against the SEC, which challenge the classification of digital assets as securities or commodities. These classification ambiguities create substantial uncertainty for retail investors, potentially exposing them to increased financial risks and limiting their ability to make informed investment decisions.

Comparative analyses of global regulatory practices revealed diverse approaches to retail investor protection, emphasizing the need for adaptive, technology-integrated regulatory frameworks. Jurisdictions like the United Kingdom have implemented more comprehensive guidelines focusing on market stability and investor protection through stringent KYC and AML compliance measures. The research underscores the importance of developing holistic strategies that balance technological innovation with robust investor safeguards. Future regulatory approaches must prioritize enhanced investor education, improved transparency, and the development of sophisticated technological tools that can effectively monitor and mitigate risks in increasingly complex digital trading environments.

#### **IV. Discussion**

The rise of digital trading platforms has transformed the landscape of retail investment, making it more accessible than ever for individual investors to participate in the financial markets. Retail investors, who once faced significant barriers to entry, now enjoy an array of online tools and resources that facilitate trading opportunities previously reserved for institutional participants. However, this democratization of investment comes with its own set of challenges, primarily surrounding the protection of these investors. The literature surrounding retail investor protection highlights significant regulatory hurdles in safeguarding an increasingly diverse and technologically savvy investor base. The convergence of innovation in trading technologies and traditional regulatory frameworks necessitates an in-depth examination of existing protections, potential risks, and the evolving regulatory environment.

Significance in this field cannot be overstated; as retail trading continues to surge exemplified by the unprecedented growth during the COVID-19 pandemic understanding the regulatory landscape has become paramount. Many studies reveal that while digital trading platforms offer unparalleled access and lower transaction costs, they also introduce a host of complexities that can jeopardize investor well-being. Key themes emerging from the literature include the implications of market volatility, the role of behavioral finance in trading decisions, and the influence of social media and peer-to-peer networking on investment behavior. For example, scholars have spotlighted that

retail investors may be more susceptible to herd behavior and emotional trading, especially in the context of social media-driven market movements. Moreover, the current regulatory framework, which often lags behind technological advancements, raises concerns about the effectiveness of existing protections. Research indicates that regulatory bodies such as the

SEC (Securities and Exchange Commission) have struggled to adapt to this fast-paced environment, resulting in gaps in investor education, a lack of transparency in trading operations, and insufficient measures to combat fraud and misrepresentation. While some literature advocates for stronger regulations and enhanced investor education to mitigate these risks, others suggest that a balance must be struck to avoid stifling innovation and competition within the market. Despite extensive research highlighting these concerns, gaps remain in understanding the nuanced interactions between technology, investor behavior, and regulatory efficacy. Specifically, more empirical studies are needed to explore how varying demographic factors influence retail investors' vulnerability to risks associated with digital trading. Furthermore, as the marketplace continues to evolve, there is a pressing need for comprehensive approaches that integrate technological advancements into regulatory frameworks.

The literature often lacks an interdisciplinary perspective, which could illuminate how insights from behavioral economics, technology studies, and legal frameworks can collaboratively enhance retail investor protection. In conclusion, this literature review will delve into the multifaceted dimensions of retail investor protection in the context of digital trading by synthesizing existing literature, examining regulatory challenges, and proposing avenues for future research. Through a systematic analysis of the landscape, it aims to highlight not only the pivotal issues at play but also viable solutions to foster a safer trading environment for retail investors against the backdrop of rapid technological advancements. This exploration serves as a crucial stepping stone to inform regulatory bodies and stakeholders in the quest for effective protection mechanisms that can harness the benefits of digital innovation while safeguarding the interests of individual investors.

The evolution of retail investor protection has significantly transformed alongside the rise of digital trading platforms since the late 1990s. Initially, regulatory frameworks focused on conventional brokers and exchanges, reflecting an era where in-person transactions predominated. This reliance on traditional systems left many retail investors vulnerable to fraud and misleading practices in a non-automated trading environment (Miao, 2024). As online trading gained traction in the early 2000s, regulators began to recognize the need for updated protections tailored to these emerging digital platforms. The introduction of the SEC's Regulation NMS in 2005 aimed to enhance competition and transparency, requiring market participants to give best execution to customer orders (Andoni et al., 2019). However, the rapid development of technology created an array of new challenges.

High-frequency trading emerged, entrenching issues of market manipulation and sudden volatility, which disproportionately affected retail investors (Lee & Shin, 2018). Studies identified that while access to markets via digital platforms flourished; many investors lacked crucial knowledge about the risks involved, highlighting the inadequacy of existing regulatory frameworks (Liao et al., 2017).

In response, regulators attempted to bolster education and awareness through initiatives like the SEC's Office of Investor Education and Advocacy. As the digital landscape evolved, calls for stricter regulations grew. In particular, the widespread use of mobile trading apps raised concerns regarding the adequacy of built-in investor protections and the potential for predatory practices (Albino, Berardi, & Dangelico, 2015). Recent proposals have sought to address these concerns, urging regulators to enhance disclosure requirements and ensure greater accountability among digital trading platforms, while also advocating for improved financial literacy programs to empower investors (Pi & Khan, 2011). This ongoing quest for a balanced regulatory approach underscores the necessity for adaptive strategies that protect retail investors in an increasingly complex digital trading environment.

The emergence of digital trading has profoundly transformed the landscape for retail investors, simultaneously fostering greater market access while engendering critical regulatory challenges. Central to these challenges is the issue of information asymmetry, where inexperienced investors may lack the knowledge or resources to navigate complex trading platforms effectively. Research has identified that such asymmetries can result in detrimental outcomes, including uninformed trading decisions and susceptibility to market manipulation. Furthermore, the proliferation of algorithmic trading and high frequency trading has raised concerns about market volatility, often disadvantaging retail investors with slower access to market data. Amid these challenges, regulators face the task of ensuring a level playing field while encouraging innovation within financial markets. Regulatory frameworks in various jurisdictions have begun to evolve in response (Isaac et al., 2024).

For instance, the implementation of the Regulation Best Interest in the United States aims to address conflicts of interest and enhance the fiduciary duties owed to retail investors. However, critics argue that these regulations may not extend far enough to mitigate the risks inherent in digital trading environments. Simultaneously, the role of fintech solutions has emerged as a potential complement to regulatory efforts. Tools designed to assist retail investors in making informed decisions can help bridge knowledge gaps and improve financial literacy (Melkonyan, 2020). However, as these technologies evolve, the challenge lies in ensuring that they are regulated effectively to prevent exploitation and further aggravate existing disparities. Thus, the intersection of regulation, technology, and retail investor behavior necessitates an ongoing dialogue to ensure robust investor protection in the digital age.

Ultimately, adapting regulatory approaches to address the unique characteristics of digital trading while fostering a transparent and equitable market is essential for the protection of retail investors. The emergence of digital trading platforms has profoundly changed the landscape for retail investors, prompting a reexamination of regulatory frameworks aimed at ensuring their protection. Various methodological approaches have yielded differing insights into the challenges and potential solutions for safeguarding retail investor interests. Quantitative studies often utilize empirical data to assess trading behavior on these platforms, revealing patterns that highlight the risks associated with high-frequency trading and algorithmic decision-making. For instance, research indicates that increased trading speeds can exacerbate market volatility, posing particular risks for less experienced investors seeking to engage in dynamic markets.

Conversely, qualitative methodologies, such as interviews and focus groups, provide rich contextual insights into retail investor behaviors and perceptions regarding digital trading. These studies reveal a significant apprehension about the complexity of trading technologies and the perceived lack of transparency from trading platforms. Such inquiries underscore the need for regulatory frameworks to evolve, informed by a comprehensive understanding of investor experiences and the regulatory gaps that may enable exploitation or miscommunication in digital trading environments (Rombouts, 2017). Furthermore, comparative analyses of global regulatory practices highlight diverse approaches to retail investor protection, including the significance of education and awareness initiatives. Such variations emphasize the potential for a hybrid regulatory framework that incorporates both strict oversight and proactive investor education as viable strategies for enhancing protection in the digital trading domain.

By integrating both quantitative and qualitative findings, researchers can better inform policymakers about the regulatory challenges and solutions necessary to create a safer trading environment for retail investors in the age of digital platforms. The protection of retail investors in the digital trading landscape presents significant regulatory challenges that can be analyzed through various theoretical lenses. One predominant perspective is the agency theory, which underscores the principal-agent dynamics between retail investors (principals) and financial intermediaries (agents). This framework highlights the potential for agency costs, as intermediaries may prioritize their own interests over those of the investors, thus justifying regulatory oversight to ensure fairness and transparency in trading practices. Additionally, behavioral finance offers insights into the irrational behaviors exhibited by retail investors, such as overconfidence and herd behavior, which may lead to suboptimal investment decisions (Burri & Kugler, 2024).

Theories of market efficiency further complicate this discourse, as the rise of digital trading platforms has led to increased market participation, shifting dynamics that may challenge the assumptions of efficient markets (Jovanovic, 2010). Proponents of

regulatory interventions argue for frameworks that enhance investor protection, citing the necessity of disclosures and education to empower investors. Conversely, critics worry that excessive regulation might stifle innovation and the benefits brought by digital trading platforms, as highlighted in market reaction to recent regulatory measures. Nevertheless, integrating these theoretical perspectives can provide a robust foundation for developing balanced regulatory frameworks that not only protect retail investors but also promote market efficiency and innovation in the evolving digital trading ecosystem. Thus, harmonizing these theories is crucial for crafting effective regulations that address the unique challenges posed by contemporary trading environments. In conclusion, this literature review has critically examined the multifaceted landscape of retail investor protection amid the rise of digital trading platforms.

The rapid evolution of technology has democratized access to financial markets, allowing retail investors unprecedented opportunities to engage in trading activities. However, this transformation has also introduced significant regulatory challenges that necessitate a reevaluation of existing frameworks aimed at safeguarding these investors. Key findings reveal that while online trading platforms have made investing more accessible, they have also amplified the risks associated with information asymmetry, behavioral biases, and technological volatility, which often disproportionately affect less experienced investors. The central theme of this review underscores the tension between fostering innovation in digital trading and implementing robust protective measures for retail investors. It is evident from the literature that current regulatory frameworks, often rooted in outdated paradigms, are grappling to keep pace with technological advancements (Johri, Wasiq, Kaur, & Asif, 2023).

For instance, while initiatives such as the SEC's Regulation Best Interest aim to enhance fiduciary responsibilities and align the interests of financial intermediaries with those of retail investors, gaps remain in addressing the complexities introduced by algorithmic trading and the rise of social media-driven investment trends. Broader implications of these findings suggest a pressing need for regulatory bodies to establish adaptive frameworks that not only improve investor education but also enhance transparency and accountability among trading platforms. The increasing prevalence of mobile trading apps, coupled with the expansion of fintech solutions, necessitates a regulatory approach that encourages innovation while safeguarding investor rights. Integrating comprehensive disclosure requirements and promoting financial literacy among retail investors emerge as critical components in fostering a more secure trading environment (Marcos, 2021).

This integration is vital not only to empower investors but also to cultivate a public trust in financial markets, which is imperative for their long-term stability and growth. Despite the extensive literature reviewed, certain limitations must be acknowledged. Much of the existing research tends to focus on regulatory responses within specific



jurisdictions, resulting in a fragmented understanding of global best practices for retail investor protection. Additionally, empirical studies examining the impact of demographic factors on investor behavior in the context of digital trading remain limited. Such gaps underscore the need for more interdisciplinary research that encompasses behavioral finance, technology adaptation, and legal theory to provide a holistic understanding of the challenges and potential solutions (Deffenbacher, 2022). Future research avenues should prioritize empirical investigations into how demographic variations influence retail investor engagement with digital trading platforms, focusing on aspects such as age, financial literacy, and risk tolerance.

The analysis of the regulatory landscape in the context of digital trading platforms reveals several critical findings that underscore the complexities and challenges in protecting retail investors. A key observation is the significant gap in anti-money laundering (AML) and know-your-customer (KYC) requirements, particularly in the metaverse and other digital asset environments. For instance, FINRA's recent report highlights that while metaverse platforms offer enhanced visualizations and engagement opportunities, they also pose unique regulatory challenges, including the need for firms to conduct their own risk assessments regarding the potential regulatory implications of virtual spaces (Bizzi & Labban, 2019). The lawsuit filed by Crypto.com against the SEC, for example, challenges the SEC's de facto rule defining digital assets as securities, arguing that such classifications are beyond the SEC's statutory authority and lack proper rulemaking procedures.

Furthermore, the research emphasizes the crucial role of technology in ensuring compliance. Automated reporting tools and advanced surveillance capabilities are essential in maintaining regulatory standards, especially in high frequency trading and algorithmic decision-making environments. The EU's Digital Operational Resilience Act (DORA) and the proposed regulatory regime for stable coin issuers illustrate the importance of integrating technology into regulatory frameworks to enhance transparency and prevent market manipulations (Hernes et al., 2024). The comparative analysis of global regulatory practices reveals diverse approaches to retail investor protection, with some jurisdictions implementing stricter regulations while others adopt more flexible frameworks. The UK's regulatory framework for digital assets, for instance, focuses on creating stable market conditions and enhancing investor protection through clear mandates and guidelines for KYC and AML compliance.

The proliferation of digital trading platforms has ushered in a new era of financial market participation, but it has also exposed retail investors to a myriad of risks that traditional regulatory frameworks are ill equipped to address. One of the most significant challenges is the lack of clarity in the classification of digital assets, which often oscillates between being treated as securities or commodities. This ambiguity not only confuses investors but also hampers the ability of regulatory bodies to enforce consistent

and effective oversight. For instance, the recent approval of spot Bitcoin ETFs by the SEC, while a step towards greater market accessibility, highlights the ongoing struggle to define the regulatory status of cryptocurrencies. Moreover, the rise of sophisticated trading technologies, such as high-frequency trading and algorithmic decision-making, has introduced new layers of complexity that can disadvantage retail investors (Shan, Yang, Becerra, Deng, & Li, 2023). These technologies, while enhancing market efficiency in some respects, can also exacerbate market volatility and create information asymmetries that leave less sophisticated investors vulnerable to manipulation.

The need for adaptive regulatory measures that can keep pace with these technological advancements is paramount. For example, the EU's Digital Operational Resilience Act (DORA) and the proposed regulatory regime for stable coin issuers demonstrate a proactive approach to integrating technology into regulatory frameworks, enhancing transparency and preventing market manipulation. Furthermore, the increasing prevalence of crypto scams and fraudulent activities on digital trading platforms underscores the critical importance of robust anti-money laundering (AML) and know-your-customer (KYC) requirements. Cases such as those reported to the DFPI, where victims were lured into fake crypto trading schemes with promises of unrealistic returns; highlight the devastating consequences of inadequate regulatory oversight. The implementation of stringent AML and KYC measures, as seen in the regulatory frameworks of jurisdictions like Gibraltar, can significantly mitigate these risks and create a more secure environment for retail investors

### Conclusion

The rapid evolution of financial technologies, including fintech innovations and digital assets, has introduced a complex array of risks and opportunities that traditional regulatory frameworks struggle to address. The lack of clarity in the classification of digital assets, the heightened risks associated with anti-money laundering (AML) and know-your-customer (KYC) requirements, and the challenges posed by high-frequency trading and algorithmic decision-making all underscore the need for robust and flexible regulatory measures. To effectively safeguard retail investors, regulatory bodies must integrate advanced technologies into their frameworks, leveraging tools such as automated reporting and advanced surveillance capabilities to enhance transparency and prevent market manipulations.

The EU's Digital Operational Resilience Act (DORA) and similar initiatives demonstrate the potential for proactive regulatory approaches that balance innovation with investor protection. Moreover, the importance of state-level oversight, as seen in the actions of state attorneys general and regulatory agencies, highlights the need for a decentralized yet coordinated regulatory strategy to fill any gaps left by federal oversight. Ultimately, the future of retail investor protection in digital trading hinges on the ability

of regulatory bodies to harmonize global best practices, foster a culture of transparency and accountability, and adapt to the evolving landscape of financial technologies. By doing so, they can create a stable and equitable market environment that empowers retail investors to participate confidently in the digital age of trading.



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