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The Evolution of Ponzi Schemes: From Traditional Frauds to Digital Money Games

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ABSTRACT

Ponzi schemes are a form of investment fraud that continues to evolve along with the development of technology and financial systems. This study aims to trace the evolution of Ponzi schemes from traditional models to the digital era by reviewing various academic literature. This study uses a literature review method to identify patterns, characteristics, and mechanisms of Ponzi schemes in various contexts, including conventional investments, crypto assets, and digital platforms. The results of the study show that digitalization has accelerated the spread of Ponzi schemes through social media, investment applications, and blockchain technology. Ponzi schemes have evolved as a result of changes in modern investor behavior, motivated by a desire to make rapid returns with little risk. In addition, the lack of financial and technological literacy makes many investors unable to distinguish between legitimate investments and fraud. One of the most difficult issues in combating digital Ponzi schemes is that regulations have not yet fully adapted to financial innovation. Thus, this study is expected to help scholars, regulators, and investors comprehend and anticipate the threat posed by Ponzi schemes in the digital age.

Keywords:
Ponzi Scheme, Investment Fraud, Digital Ponzi, Forensic Accounting, Financial Literacy.

1. INTRODUCTION

The Ponzi scheme is a form of investment fraud that continues to grow and has a significant impact on society and the global financial system (Wahyudi et al., 2022). Along with technological advances, the modus operandi of Ponzi schemes has undergone a transformation from the traditional face-to-face meeting-based model to a digital scheme that utilizes the internet (Onanuga & Taiwo, 2020), social media (Baltacı & Vural, 2025), and blockchain technology (Bartoletti et al., 2020; Madhavan & Kalabaskar, 2022). This phenomenon is increasingly worrying because many victims come from various levels of society, including novice investors who have low financial literacy (Dutta & Sarkar, 2019). Therefore, understanding the evolution of Ponzi schemes is important for academics, regulators, and the public to increase awareness of increasingly complex investment fraud.

Various studies have been conducted to uncover the mechanism of the Ponzi scheme, its impact on the economy, and methods of prevention. Early studies on Ponzi schemes focused on classic cases such as the Bernard Madoff Ponzi Scheme, which became one of the world's largest financial scandals (De Bruin, 2014; Herc, 2013; Homer et al., 2023; Lewis, 2016, 2017; Ortner, 2019). Furthermore, the research developed by highlighting the characteristics of Ponzi schemes in multi-level marketing (MLM) based investments (Baltacı & Vursal, 2025; Bartoletti et al., 2020; Bosley, 2018; Suwitho et al., 2023), banking (Bartoletti et al., 2020; Castro Severiche et al., 2025; Gryazeva et al., 2021; Kalabeke & Nguyen, 2024; Kasim et al., 2020; Madhavan & Kalabaskar, 2022), and property sector (Amoah, 2018; Madhavan & Barrass, 2011). In recent years, research has begun to point to Ponzi schemes in the digital ecosystem, including cryptocurrency-based scams, smart contracts, and fintech-based investment apps that promise unrealistic returns (Fei et al., 2020; Jung, 2019; Madhavan & Kalabaskar, 2022).

Although there have been many studies on Ponzi schemes, there are still some weaknesses that need to be highlighted. Most studies still focus on analyzing specific cases without discussing the overall pattern of Ponzi scheme evolution over time. In addition, studies on regulations and preventive measures are often reactive (Arianto, 2021; Purwogandi, 2023; Teng et al., 2024), while predictive models to identify potential Ponzi schemes in the digital era are still limited. This gap highlights the need for a systematic literature review that can connect different perspectives on the development of Ponzi schemes over time and provide new insights into how technology plays a role in accelerating or inhibiting the spread of these schemes.

This study aims to trace the evolution of Ponzi schemes from traditional models to the digital era through a systematic literature review approach. This study not only identifies trends and patterns that emerge in Ponzi schemes but also identifies factors that drive the evolution of Ponzi schemes. Thus, this study is expected to contribute to academics, regulators, and the public in understanding and preventing the negative impacts of Ponzi schemes in the digital era.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Basic Theory of Ponzi Scheme

A Ponzi scheme is a form of investment fraud in which the profits paid to existing investors come from the funds of new investors, rather than from legitimate business profits (Alibe et al., 2023; Manias, 1978). The basic theory often associated with Ponzi schemes is the Greater Fool Theory, which states that as long as there are people willing to buy an asset in the hope of selling it to someone else for a higher price, the scheme will continue to operate (Omona et al., 2015; Shiller, 2015). In addition, Behavioral Finance Theory explains how cognitive biases such as overconfidence and herd behavior play a role in attracting investors to join this

scheme (Annapurna & Basri, 2024; Inaishi et al., 2010; Tversky & Kahneman, 1974).

The Evolution of Ponzi Schemes: From Traditional to Digital

Historically, the Ponzi scheme has evolved from a conventional investment model to a more complex form along with technological developments (Lewis, 2011). In the early 20th century, the Charles Ponzi case became one of the most famous in postal coupon arbitrage-based investment schemes. Along with the globalization of finance, these schemes have developed through multi-level marketing (MLM), banking, and property models (Anggriawan et al., 2023; Hidajat, 2018, 2020; Hidajat et al., 2020). Nowadays, with the advent of blockchain technology and cryptocurrency, Ponzi schemes are developing in the form of digital token-based investments, smart contracts, and decentralized finance (DeFi) which are often difficult to track due to the anonymity of transactions (Bartoletti et al., 2020; Bartoletti et al., 2018; Kerr et al., 2023; Madhavan & Kalabaskar, 2022; Piaw et al., 2019; Vasek, 2015, 2019).

Regulation and Prevention of Ponzi Schemes

Regulation is an important aspect in preventing Ponzi schemes. In many countries, these schemes are categorized as a violation of the law under the Consumer Protection and Capital Markets Act (Shleifer & Vishny, 1996). Regulators such as the U.S. Securities and Exchange Commission (SEC) and the Financial Services Authority (OJK) in Indonesia continue to develop legal instruments to detect and prosecute Ponzi schemes. However, the effectiveness of regulation often lags behind increasingly sophisticated financial innovations (Moromoke et al., 2024; Nwafor & Ayodele, 2024; Worthington, 2022). Therefore, technology-based approaches such as the use of big data analytics and forensic accounting are increasingly necessary in detecting indications of Ponzi schemes (Islam et al., 2024).

The Role of Financial Literacy in Reducing Ponzi Scheme Victims

Lack of financial literacy is one of the main factors that causes many people to get caught up in Ponzi schemes (Lusardi & Mitchell, 2014)which casts financial knowledge as a form of investment in human capital. Endogenizing financial knowledge has important implications for welfare, as well as policies intended to enhance levels of financial knowledge in the larger population. Next, we draw on recent surveys to establish how much (or how little. Financial Literacy Theory shows that individuals with low financial understanding are more vulnerable to fraudulent investments that promise large profits in a short time (Atkinson & Messy, 2012; Huston, 2010). Therefore, increasing financial literacy through formal education and public campaigns is very important to prevent the spread of Ponzi schemes, especially in the digital era which allows for the rapid spread of information through social media (Fernandes & Netemeyer, 2014).

3. RESEARCH METHODS

This research uses a literature review method, which aims to study and analyze the development of the Ponzi scheme from a historical, economic, and technological perspective based on various academic sources, books, scientific journals, and industry reports (Wahyudi et al., 2021). This literature study is descriptive-analytical, where the research is conducted by collecting, classifying, and analyzing theories and findings from previous research (Kadwa & Alshenqeeti, 2020)the student will be able to meet the challenges and demands of other science courses that are taught in the English language in the first-year program as well as the subsequent bachelor's programs. In order to prepare students for academic success, the tendency at most Saudi universities is to use international, mostly US or UK, publishers to provide the resources for its curriculum which is based on the Common European Framework of Reference for Languages (CEFR. The population in this study includes all academic documents, scientific journals, industry reports, and literature discussing Ponzi schemes, financial crimes, investment regulations, and the evolution of technology in illegal financial practices sourced from reputable international journals (Scopus). The research sample was selected based on relevance to the topic discussed, especially studies that examine Ponzi schemes in the context of traditional and digital finance with observation studies from 2020 - 2024 presented in Figure 1.

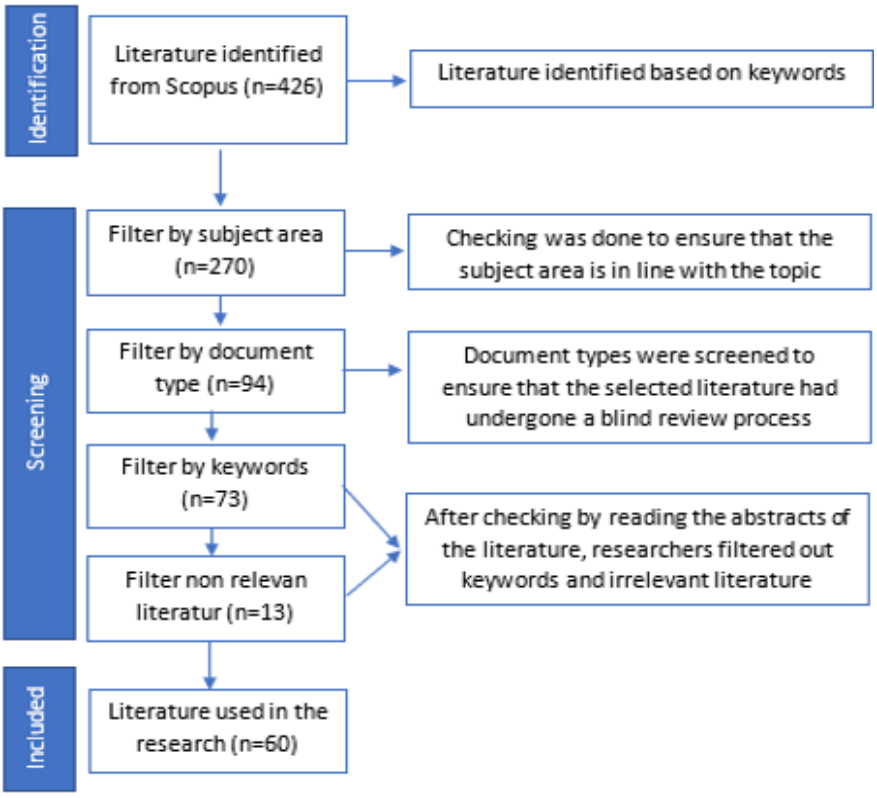

Figure 1
PRISMA Diagram

Figure 1 shows the sampling procedure using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) diagram. PRISMA is a systematic review reporting protocol that includes a checklist and flowchart, developed in the life sciences to improve transparency and accuracy in literature reviews (Bellucci et al., 2022). This diagram is used by researchers to determine the literature that is identified, selected, and eliminated from the research, including the reasons for the exclusion.

The researchers conducted a manual selection of 73 articles that had been filtered based on subject area, document type, and keywords (Figure 1). Furthermore, articles that were considered irrelevant were excluded, namely: (a) articles that only discussed Ponzi schemes in general, (b) articles that were not published in the last five years (2020–2024), because this study focuses on the latest trends in Ponzi schemes, and (c) articles that did not have abstracts and could not be accessed through subscription platforms. After the manual screening process, 13 articles were eliminated, leaving 60 articles from Scopus that were used in this study.

For bibliometric visualization, researchers use the VOS Viewer tool. The bibliometric visualization shows a visualization of the co-occurrence network in Ponzi scheme research in the period 2020–2024. This study uses qualitative analysis methods with content analysis techniques to identify patterns and trends in Ponzi scheme studies (Sari, 2024; Sugiyono, 2016a). This technique was chosen because it allows researchers to examine various perspectives from different literatures and create a comprehensive synthesis. The analysis flow is carried out in several stages: 1) Identification - Collecting sources from academic databases (Google Scholar, Scopus, ScienceDirect, etc.). 2) Classification - Grouping literature based on main themes, such as traditional, digital, and regulatory Ponzi schemes. 3) Critical Analysis - Comparing theories and findings from various sources to see trends and changes in Ponzi schemes. 4) Synthesis - Drawing conclusions about the evolution of Ponzi schemes and their implications for future research. This method allows researchers to provide a broader understanding of the transformation of Ponzi schemes from a historical perspective to the digital era (Sugiyono, 2016b).

4. RESULTS AND DISCUSSION

Overview of Findings

Most Frequent Publication Year

Figure 2 illustrates how the volume of research on Ponzi schemes varies from year to year. Figure 2 shows the trend of research related to Ponzi schemes from 2020 to 2024, which has fluctuated significantly. In 2020, the number of studies recorded was 7 documents, indicating initial attention to this topic. This trend then increased sharply in 2021, with the number of documents reaching 13, which was most likely due to the increasing cases of digital Ponzi schemes and the rise of crypto-based investments. However, in 2022, the number of studies dropped drastically back

to 8 documents, which may indicate a shift in academic focus to other issues or a decrease in the urgency of discussing Ponzi schemes in the scientific literature.

This trend spikes again in 2023, with the number of papers increasing rapidly to 19, which can be attributed to the attention paid to blockchain, smart contracts, and machine learning in Ponzi scheme detection. However, in 2024, the number of studies drops again to 13, which may indicate a shift in research focus to regulatory aspects, prevention, and mitigation strategies rather than simply exploring new patterns in Ponzi schemes. Overall, this trend suggests that academic attention to Ponzi schemes tends to increase when there are technological developments that support new modus operandi, but then declines when the focus shifts to control and prevention.

Publications by Country

Figure 3 shows the number of research papers related to Ponzi schemes by country. The United States has the largest number of studies, with more than 16 papers, reflecting the high academic attention to Ponzi schemes in the country, possibly driven by high-profile cases such as Bernie Madoff and crypto-based investment schemes. China is in second place with almost 11 papers, indicating an increase in research on illegal investment and financial regulation in the country. Indonesia is in third place with around 8 papers, reflecting the increasing number of Ponzi schemes in the country, especially in digital-based investments and illegal multi-level marketing (MLM). Other countries such as the United Kingdom, Ghana, South Africa, and the United Arab Emirates also have a significant number of studies, indicating that Ponzi schemes are a global phenomenon that occurs not only in developed countries but also in developing countries. The

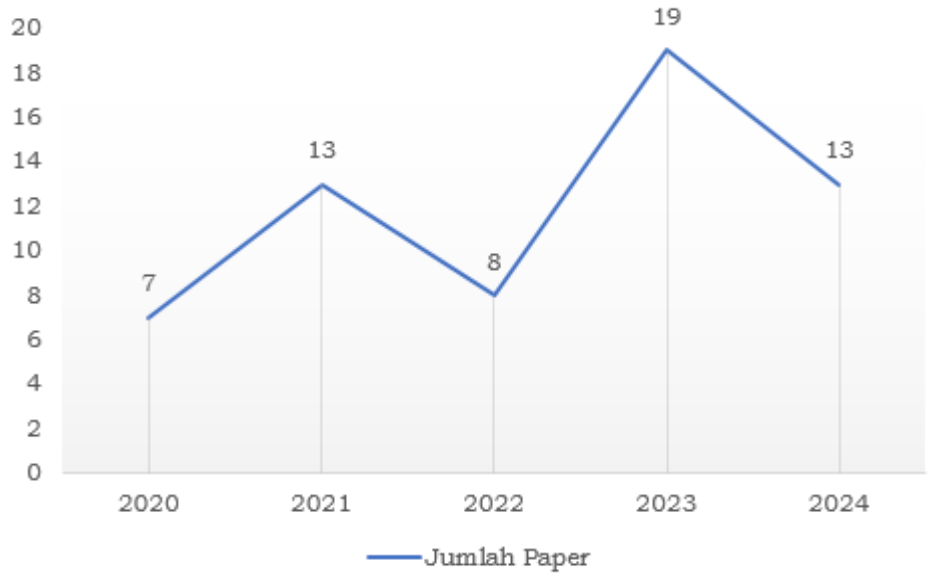

Figure 2
Distribution of Research from 2020-2024
Source: Data Processed

diversity of countries in this study confirms that Ponzi schemes have adapted to the economic and regulatory contexts of each country, and have become increasingly complex with the adoption of technologies such as blockchain and cryptocurrency.

Use of Research Methods

Table 1 shows the diversity of methods used in previous literature. Several studies used qualitative and quantitative methods as well as mix methods. Based on the number of articles, the most common method used by previous researchers was the qualitative research method. Then the next study as many as 22 articles, researchers used quantitative methods and 3 articles used mix methods. These data show that there are still few studies that test the mix method related to conventional ponzi schemes and digital ponzi schemes.

Table 1. Use of Research Methods

Number	Method	Total	Research
1	Qualitative	35	Saputra (2024), Choi et al. (2024), Yousif et al. (2024), Meng et al. (2024), Heyman (2024), Bhadra & Singh (2024), Baltacı & Vural (2025), Arthur et al. (2025), Combs & Dille (2024), Xu et al. (2023), Anggriawan et al. (2023), Ball & Mankiw (2023), Kerr et al. (2023), Ofori (2023), Dupuis (2023), Schoen (2023), Homer et al. (2023), Chitimira & Munedzi (2023), Suwitho et al. (2023), Swandaru & Muneeza (2022), Ullah et al. (2022), Mankiw (2022), Kutera (2022), Ryzhkova & Kashapova (2022), Chiluwa (2022a), Huang et al. (2021), Wang et al. (2021), Cochran (2021), Fan (2021), Daipon & Hendri (2021), Saadat (2021), Rao (2021), Mohammed (2021), Muhammad (2021), Fei et al. (2020).
2	Quantitative	22	Constantino et al. (2024), Li et al. (2024), Husaeni et al. (2024), Nguyen et al. (2024), Zhang et al. (2023), Singh & Misra (2023), Sawaya et al. (2023), Kocherlakota (2023), Michau et al. (2023), Ebrahimi et al. (2023), Lo & Kan (2023), Ghani et al. (2023), Mireku et al. (2023), Leslie (2022), Chiluwa (2022b), Harison & Mihály (2021), Hedman (2021), Ullah et al. (2021), Amponsah-Mensah (2021), Hidajat et al. (2020), Carlini (2021), Chen (2021).
3	Mix Method	3	Zhang et al. (2021); Tajti (2021); Deason et al. (2021).

Source: Data Processed

Table 2. Use of Research Approaches

Number	Research Approach	Total	Research
1	Literature Review	28	Heyman (2024), Bhadra & Singh (2024), Baltacı & Vural (2025), Nguyen et al. (2024), Arthur et al. (2025), Combs & Dille (2024), Xu et al. (2023), Kocherlakota (2023), Michau et al. (2023), Ebrahimi et al. (2023), Anggriawan et al. (2023), Ball & Mankiw (2023), Ofori (2023), Homer et al. (2023), Chitimira & Munedzi (2023), Suwitho et al. (2023), Swandaru & Muneeza (2022), Ullah et al. (2022), Brumm et al. (2022), Mankiw (2022), Kutera (2022), Chiluwa et al. (2022a), Huang et al. (2021), Wang et al. (2021), Amponsah-Mensah (2021), Fan (2021), Carlini (2021), Mohammed (2021).
2	Case study	11	Saputra (2024), Choi et al. (2024), Yousif et al. (2024), Kerr et al. (2023), Dupuis (2023), Schoen (2023), Ryzhkova & Kashapova (2022), Chiluwa (2022b), Ullah et al. (2021), Daipon & Hendri (2021), Rao (2021).
3	Survey	10	Constantino et al. (2024), Li et al.(2024), Husaeni et al. (2024), Singh & Misra (2023), Sawaya et al. (2023), Lo & Kan (2023), Ghani et al. (2023), Mireku et al. (2023), Leslie (2022), Hidajat et al. (2020).
4	Interview	3	Cochran (2021), Saadat (2021), Fei et al. (2020).
5	Experi-mental	8	Meng et al. (2024), Agunbiade & Enongene (2023), Zhang et al. (2023), Zhang et al. (2021), Harison & Mihály (2021), Hedman (2021), Tajti (2021), Deason et al. (2021).

Source: Data Processed

Meanwhile, Table 2 shows the number of studies based on the approach used in the study of the Ponzi scheme. From the Table 2, it is known that the most widely used approach is literature review with a total of 28 studies. The case study approach was used in 11 studies, while surveys were used in 10 studies. Interviews were the least used method with only 3 studies, while the experimental approach was used in 8 studies. These data show that the majority of studies on the Ponzi scheme rely more on literature analysis than empirical methods such as interviews or experiments.

Bibliometric Visualization – Ponzi Scheme Research

Figure 4 shows a visualization of the co-occurrence network in Ponzi scheme research in the period 2020–2024. Based on the results of the network visualization of 60 Scopus indexed articles,

researchers can group 6 clusters that can be identified through the node color of each keyword. *Cluster 1*, symbolized by pink/magenta and blue, consists of Ponzi, financial literacy, investment scams, investment and fraud. *Cluster 2*, symbolized by green, consists of financial inclusion, financial education, fintech regulation, p2p lending, trust. *Cluster 3*, symbolized by yellow, consists of fraud, cybercrime, virtual currency, crime script analysis, Madoff. *Cluster 4*, symbolized by purple, consists of financial crime, money laundering, economic growth. *Cluster 5*, symbolized in red, consists of blockchain, smart contract, ethereum, machine learning, scam detection. Finally, *cluster 6*, symbolized in orange, consists of cryptocurrencies, economic history, business ethics.

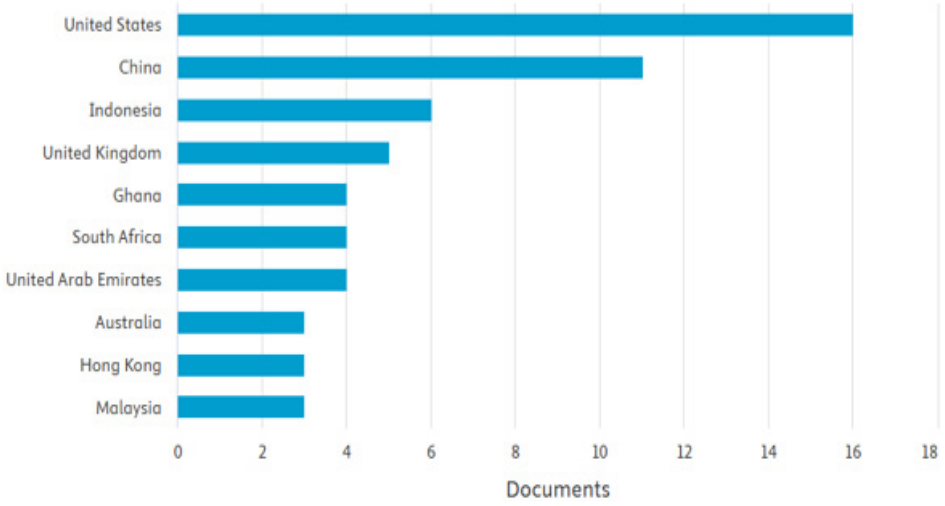

Figure 3
Distribution of Research by Country
Source: Data Processed

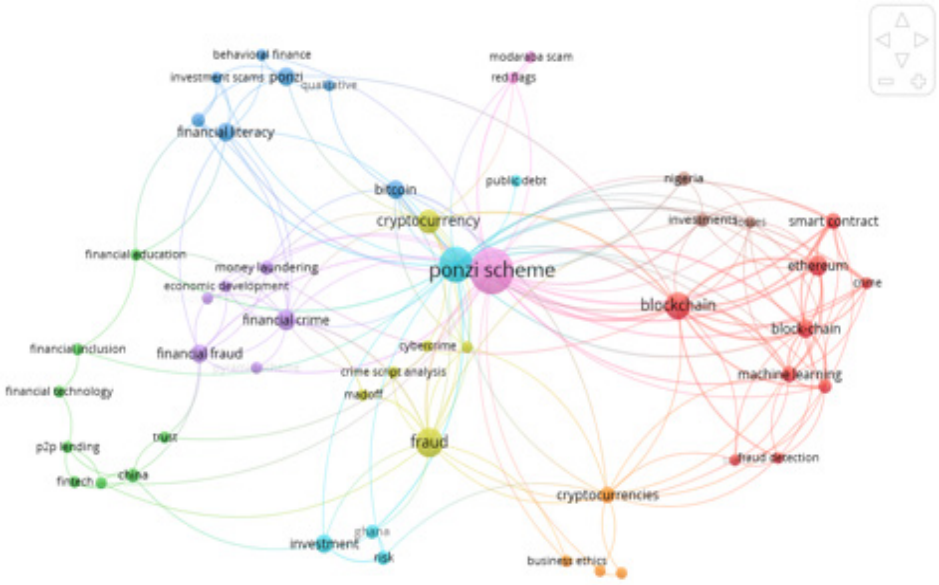

Figure 4
Network Visualization
Source: Data Processed

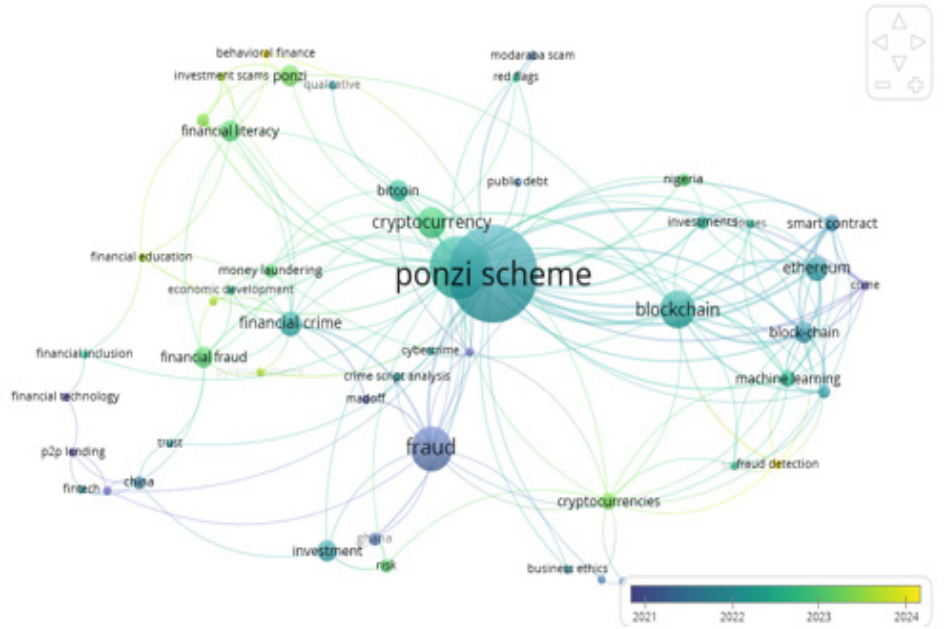

Figure 5
Overlay Visualization
Source: Data Processed

Figure 5 shows the mapping and grouping of research trends on traditional Ponzi schemes and digital Ponzi schemes based on historical traces or years of research publication. It can be seen from the visualization results that the focus of research on traditional Ponzi schemes and digital Ponzi schemes through research trends on Ponzi schemes from 2020 to 2024 show significant changes in the focus of studies, especially related to the development of financial technology. In 2020-2022, research discussed more traditional financial crimes, including fraud, money laundering, and financial crime, which are often associated with illegal investments and conventional fraud strategies. During this period, aspects of financial literacy and behavioral finance also received attention, highlighting how people's understanding of investment can affect their involvement in Ponzi schemes.

Entering 2022-2023, research has begun to shift to exploring cryptocurrency and blockchain as new means for Ponzi schemers to carry out their modus operandi. Ethereum, smart contracts, and fintech have become increasingly common keywords, showing how blockchain technology enables digital-based Ponzi schemes with automation mechanisms through smart contracts. In addition, there has been an increase in research highlighting fraud detection using machine learning, indicating the efforts of academics and practitioners in developing early detection methods for suspicious transaction patterns in technology-based Ponzi schemes.

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Discussion

The evolution of the Ponzi Scheme reflects the changing dynamics in the world of finance and technology, where the modus operandi of investment fraud continues to adapt to the times. The Ponzi Scheme, first popularized by Charles Ponzi in the early 20th century, initially relied on conventional methods such as face-to-face communication and correspondence to attract victims (Agunbiade & Enongene, 2023; Choi et al., 2024). However, along with technological advances, especially the internet and digital financial innovations, this scheme has undergone a transformation into a more complex and difficult to trace form (Zhang et al., 2023). Previously, this scheme relied on promises of high returns through traditional investment instruments (Mohammed, 2021; Tajti, 2021), Now Ponzi schemes are taking advantage of cryptocurrency (Ngsuyen et al., 2024), social media (Dupuis, 2023; Yu, 2021), and digital platforms to reach victims globally (Wang et al., 2021). This transformation not only expands the scope and speed of scheme deployment, but also creates significant challenges for regulators and law enforcement officials (Chen et al., 2021b)many Ponzi schemes disguise them-selves under the veil of smart contracts. The Ponzi scheme contracts cause serious financial losses, which has a bad effect on the blockchain. Existing Ponzi scheme contract detection studies have mainly focused on extracting hand-crafted features and training a machine learning classifier to detect Ponzi scheme contracts. However, the hand-crafted features cannot capture the structural and semantic feature of the source code. Therefore, in this study, we propose a Ponzi scheme contract detection method called MTCformer (Multi-channel Text Convolutional Neural Networks and Transofrmer.

Traditional Phase

A traditional Ponzi scheme is a type of financial fraud that promises large returns with little risk to investors (Hidajat et al., 2020). The main characteristics of a traditional Ponzi scheme: 1) High Returns with Little Risk: Ponzi schemes lure investors by promising extraordinarily high returns with minimal risk (Anggriawan et al., 2023; Bartoletti et al., 2020; Chiluwa et al., 2022a; Wahyudi et al., 2022). 2) Payments from New Investors: This scheme pays profits to existing investors using capital from new investors, rather than from profits earned from legitimate business operations (Fei et al., 2020; Wang et al., 2021; Yu, 2021). 3) Unsustainable Model: This scheme requires continuous entry of new investors in order to continue operating (Saputra, 2024; Tajti, 2021). After the number of new investors dwindled, the scheme collapsed, resulting in significant financial losses for most participants (Choi et al., 2024). Classic Case Examples: 1) Ponzi (1920): He promised 50%

returns in 45 days by purchasing international coupons (Peng & Boyle, 2024; Castro Severiche et al., 2025). In fact, the money of new investors was used to pay old investors. 2) Madoff (2008): The largest Ponzi scheme in history, with losses reaching billions of dollars (Hardy, 2020; Homer et al., 2024).

The Evolution of Ponzi Schemes in the Digital Age

Ponzi schemes, which promise high returns to investors by using capital from new investors, have grown rapidly with the advent of digital technology (Anggriawan et al., 2023; Bhadra & Singh, 2024; Dupuis, 2023). This scheme, which was initially conducted offline, has moved into the digital world, taking advantage of the anonymous and decentralized nature of cryptocurrencies and blockchain technology (Bartoletti et al., 2020; Castro Severiche et al., 2025; Dupuis, 2023).

Transition to Digital Platforms

a. Early Migration. Ponzi schemes began to migrate to the digital realm with the emergence of the internet, where perpetrators utilized web-based platforms as operational media before finally integrating cryptocurrencies such as Bitcoin and Ethereum (Bartoletti et al., 2021; Choi et al., 2024; Dupuis, 2023).
b. Cryptocurrency Integration. The adoption of blockchain technology allows Ponzi schemers to create a seemingly "trustworthy" scam through the use of smart contracts on platforms like Ethereum. These contracts are executed automatically, ensuring the scheme operates without human intervention, even though it is still essentially a scam (Chen et al., 2021b; Ibba, 2021; Shen, 2021; Yamuna et al., 2023).
c. Smart Contracts. Smart Contracts have opened up new opportunities for Ponzi schemes, where they can appear more legitimate and are difficult to detect due to their decentralized and automated nature (Bellucci et al., 2022; Chen, 2021a; Shen, 2021; Zhang, 2021).

Characteristics and Techniques

a. Anonimitas dan Pseudonimitas. The digital space facilitates anonymity and pseudonymity, which are key factors in the rise of digital Ponzi schemes. This makes it difficult for authorities to track and identify perpetrators (Daipon & Hendri, 2021; Linoy, 2021; Carlini, 2021).
b. Linguistic and Discursive Strategies. Digital Ponzi schemes often employ sophisticated linguistic and discursive strategies to attract and deceive potential investors. These techniques include the use of politeness strategies, persuasive narratives, and the creation of a sense of community to build trust (Wahyudi et al., 2022).
c. Target Demographics. Scammers tend to target demographic groups with limited understanding of digital assets, such as older individuals. They exploit this knowledge gap to carry out fraud more effectively (Fei et al., 2020; Hidajat et al., 2020)there is a dearth of empirical research on the victims of Ponzi schemes.

The current study investigated the demographic characteristics of the victims of a Ponzi scheme based on archived data of 698 people, 30 of whom were invited to participate in in-depth interviews. Based on the interview data, we investigated why the victims invested in the scheme the first time, why they invested in the same scheme repeatedly, and why many of them relentlessly participated in other similar schemes after the disclosure of the current one without effectively learning from their failures. Inspired by institutional anomie theory, the current study suggests that specific sociocultural contexts (i.e., high living expenses, a high inflation rate, fake advertisements from newspapers, an inadequate banking system, and an ambiguous legal system.

Digital Phase

A digital Ponzi scheme is a modern version of the classic Ponzi scheme that leverages digital technologies, such as the internet, cryptocurrencies, and online platforms. (Madhavan & Kalabaskar, 2022). These schemes often disguise themselves as technology-based investments or blockchain projects. The characteristics of a digital ponzi scheme include: 1) Using Advanced Technology and Terms: For example, blockchain, AI, algorithmsic trading, or cryptocurrency mining (Kasim et al., 2020). 2) Promise of High and Fast Returns: Much like a classic Ponzi scheme, but often packaged in convincing technical language (Anggriawan et al., 2023). 3) Not Transparent: There is no clear explanation of how profits are generated (Choi et al., 2024). 4) Utilizing Social Media and Online Platforms: Promotion is done through WhatsApp groups, Telegram, Facebook, or dedicated websites (Onanuga & Taiwo, 2020). 5) Using Cryptocurrency: Many digital Ponzi schemes use cryptocurrency because of its hard-to-trace nature (Baltacı & Vural, 2025). Examples of Digital Ponzi Schemes: 1) Bitconnect (2017): This platform promised daily returns of up to 1% through "trading bots" and "volatility software." In reality, new investors' money was used to pay old investors (Kerr et al., 2023; Spulbar

Table 3. Differences between Classic Ponzi Schemes vs Digital Ponzi Schemes

Aspect	Classic Ponzi Scheme	Digital Ponzi Scheme
Media	Face to face, telephone, letter	Internet, social media, online platforms
Payment Tools	Cash, bank transfer	Cryptocurrency, digital transfer
Technology	Not using advanced technology	Using modern technology terms
Range	Geographically limited	Global, reaching more people
Speed	Relatively slow	Hurry because of online promotion

Source: Data Processed

et al., 2020). 2) OneCoin: Claimed to be a cryptocurrency, but did not have a valid blockchain. This scheme deceived investors with promises of huge profits (Bartoletti et al., 2021). Based on this explanation, it can be concluded that there are differences between the classic Ponzi scheme and the digital Ponzi scheme, which can be seen in Table 3.

Factors Driving Evolution

This literature review summarizes the factors that drive the evolution of Ponzi schemes.

a. *Technological Development.* The development of technology, especially the internet, social media, and online platforms, has been a major catalyst in the evolution of Ponzi schemes. The internet allows schemers to reach victims globally at low cost and high speed. Social media, such as Facebook, Instagram, and Telegram, are used to massively promote these schemes, creating the illusion of legitimacy through fake testimonials and viral campaigns. In addition, online platforms make it easier for perpetrators to manage their operations efficiently, including payments and communication with victims. Cryptocurrency and blockchain also play a significant role, because their decentralized and hard-to-trace nature makes them ideal tools for hiding illegal fund flows. These technologies not only make it easier for perpetrators, but also create new challenges for law enforcement in tracking and dismantling these schemes. (Deason et al., 2021; Ebrahimi et al., 2023; Xu et al., 2023).
b. *Changes in Investor Behavior.* Modern investor behavior, driven by the desire to make quick profits with minimal risk, has also fueled the evolution of Ponzi schemes. Many people are attracted to the promise of high returns offered by these schemes, especially amid economic uncertainty and low interest rates in traditional markets. In addition, the lack of financial and technological literacy makes many investors unable to distinguish between legitimate investments and scams. They are often trapped by sophisticated-sounding technical terms, such as “blockchain” or “algorithmic trading”, without understanding the risks. This phenomenon is exacerbated by the “get rich quick” culture promoted through social media, where financial success is often portrayed as something that can be achieved easily and instantly (Huang et al., 2021; Kasim et al., 2020; Carlini, 2021).
c. *Regulation and Law Enforcement.* Regulation and law enforcement face significant challenges in addressing the global, cross-jurisdictional nature of digital Ponzi schemes. These schemes often operate from countries with lax regulation, making them difficult for local authorities to crack down on. In addition, the use of technologies such as cryptocurrencies and encrypted online platforms makes it difficult to track the flow of funds and identify perpetrators. Financial authorities and regulators are also often overwhelmed by the speed of innovation in fraudulent schemes, with perpetrators

continually developing new methods to evade detection. While efforts have been made to increase international cooperation and strengthen regulation, their effectiveness has been limited due to differences in laws and enforcement capacity across countries. This creates loopholes that Ponzi schemers exploit to continue operating (Saadat, 2021; Saputra, 2024; Sawaya et al., 2023).

5. CONCLUSIONS AND SUGGESTIONS

This study aims to review the literature on the evolution of the Ponzi scheme. Digitalization has facilitated the spread of Ponzi schemes through various platforms such as social media, investment applications, and blockchain technology. However, prevention efforts face regulatory challenges, including legal gaps and rapid technological developments. Therefore, adaptive regulatory updates, increased financial literacy of the community, and coordination between institutions are needed to effectively address digital Ponzi schemes.

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