

# Unmasking Ponzi Schemes and Money Games in Multi-Level Marketing (MLM) (Case Studies in Indonesia)

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**Abstract:** - This research aims to empirically reinforce the relationship between Ponzi schemes, money games, and MLM in Indonesia, and analyze their relationship empirically through primary data. Data was obtained by distributing questionnaires to victims of Ponzi schemes, money games, and multi-level marketing in the Central Java and Yogyakarta regions during 2020-2023. A total of 150 returned questionnaires were evaluated as sample data. The data analysis for this study employed structural equation modeling. The first test concluded that elements of Ponzi schemes are found in the recruitment structure and hierarchy-based incentives of some MLM practices in Indonesia. Even the third test concluded that some practices in money games also resemble elements of illegal MLM, such as the collection of initial funds and the promise of quick profits. Low financial literacy proved to be a weak controlling factor in the relationship between Ponzi schemes, money games, and MLM, suggesting the need for improved public financial education (fourth hypothesis test finding). Overall, the findings of this study underscore the need for a re-evaluation of existing policies in Indonesia and the need for strategic measures to combat today's increasingly sophisticated financial fraud activities.

**Key-Words:** - Ponzi schemes, Money games, Multi-Level Marketing, Financial Crimes, Business Ethics, Fraudulent Practices.

Received: August 7, 2024. Revised: February 23, 2025. Accepted: March 17, 2025. Published: April 11, 2025.

## 1 Introduction

In recent years, there have been many cases of investment fraud using the Ponzi scheme system in Indonesia, [1]. A Ponzi scheme is an investment fraud scheme in which the perpetrator gives returns to investors from new investors' money. The Ponzi scheme operates like a pyramid, [2]. Thus, the more new members join, the stronger the pyramid becomes. However, when there are no new customers (members) coming in, the foundation of the pyramid is destroyed. In the investment world, Ponzi schemes are illegal and a fraud under the guise of investment, as they have no clear business base, and rely on recruiting new members to keep running. This is why many people have suffered huge losses after being involved in Ponzi schemes.

The Financial Services Authority (OJK) has stopped 390 illegal investment activities during

2020, [3]. This is because many Indonesians have suffered losses due to this illegal investment. The losses are not small, reaching up to IDR 114.9 trillion in the last decade. Indeed, the Ponzi scheme promises fixed income and instant profit sharing compared to the profits from a real business. The Financial Services Authority task force in Indonesia discovered the use of this Ponzi scheme in multi-level marketing (MLM) models, namely the member-get-member system. Actually, for a product manufacturer, this MLM method can increase the efficiency of product distribution, even reduce costs to zero, and eliminate promotional costs because distributors handle these aspects directly in a tiered system. However, some people misuse this MLM method to focus only on recruiting members and pay them based on the recruitment results. This is an indirect indication of Ponzi/pyramid system activity

and is clearly illegal and prohibited in many countries, including Indonesia, [4], [5].

Even with the increasing number of social media applications, they are often exploited by scammers to carry out their schemes and find potential victims under the guise of investment promising high returns in a short period, [6], [7]. In reality, there is no such thing as a "Santa Claus willing to instantly share wealth," meaning there is no instant profit in legitimate investments anywhere. Unfortunately, this is not yet fully understood by everyone in Indonesia. As a result, such practices often lead to social chaos, culminating in anti-MLM movements. This is because Ponzi scheme fraud often disguises itself as MLM, creating a "gray" perception of MLM in Indonesia.

Low financial and investment literacy also contributes to the high number of Ponzi scheme victims in Indonesia, [8], [9]. Typically, victims are lured by quick profits and often borrow "capital funds" beyond their financial means. Therefore, it is essential for the public to verify the legality of any investment company they plan to engage with. Moreover, prioritizing rationality when selecting investment instruments and companies is crucial for a better future, [10].

The growing number of middle-class individuals in Indonesia is suspected to be one of the factors driving certain parties to increase the offering of investment products, [11]. This middle-class group may become a primary target for both legitimate and illegitimate investment companies, [12]. The desire to profit from economic activities such as trading and investing should not end in disappointment. Instead of gaining profit, individuals may suffer losses as their hard-earned money disappears.

This issue requires immediate attention from the Indonesian government, as its impacts also threaten national economic stability. Regulations to prevent economic activities involving Ponzi schemes are already in place, such as Article 9 of Law No. 7 of 2014, which prohibits businesses from applying pyramid schemes in distributing goods. Additionally, Article 21(k) of the Minister of Trade Regulation No. 70 of 2019 on Direct Distribution of Goods stipulates that companies with trade permits are prohibited from forming marketing networks using pyramid schemes. Article 31 of the same regulation further explains that companies implementing pyramid schemes (Ponzi schemes) will face administrative sanctions, ranging from written warnings to the revocation of their trade permits.

However, some parties argue that the regulations prohibiting Ponzi schemes in Indonesia remain inadequate, as cases causing material losses from such practices continue to emerge annually, [13], [14].

This is what motivates this research, which aims to empirically reinforce the relationship between Ponzi schemes, money games, and MLM in Indonesia. This study builds upon previous research [1] by incorporating a control variable: financial literacy, [8], [9]. The contribution of this research is expected to be valuable for the government and stakeholders in evaluating regulations and policies that have so far been ineffective in preventing and taking firm action against Ponzi scheme perpetrators in Indonesia.

## 2 Problem Formulation

In underpinning the objectives of this study, we used Rational Choice Theory, as a theoretical foundation.

### 2.1 Rational Choice Theory

Rational Choice Theory (RCT) is an approach that originated in classical economics and was later adapted to social sciences, such as sociology, political science, and criminology, [15]. The theory is rooted in the thinking of Adam Smith in his book *The Wealth of Nations* (1776), which emphasizes that individuals act based on self-interest to maximize their utility (benefits), [16]. RCT is based on the assumption that individuals are rational agents who make decisions based on cost and benefit analysis, [17]. Key elements in this theory include: rational, preferences, information, and cost-benefit calculations. RCT has been an important framework in the rational choice theory of crime. Derek Cornish and Ronald Clarke developed this model to explain that offenders make decisions based on an evaluation of risks (likelihood of being caught), benefits (gains from crime), and costs (punishment). Thus, RCT remains relevant in understanding human behavior in various fields, ranging from public policy, and organizational management, to technology development. By continuously evolving, RCT not only offers a framework for understanding human action but also provides insights on how to improve decision-making in both individual and collective contexts, [18].

Thus, the theoretical basis of RCT in this study can help provide an explanation and understanding of the behavioral concepts of the perpetrators

(promoters) and victims in Ponzi schemes, Money Games, or MLM by highlighting how they make decisions based on the calculation of benefits and risks. RCT also provides an understanding of how rational decisions that seem logical at the individual level can result in adverse collective behavior, such as Asymmetric Information, Peer Pressure, and Illusion of Control.

## **2.2 A lack of Financial Literacy Increases the Likelihood of Falling Victim to Ponzi Schemes, Money Games and Deceptive Multi-Level Marketing Practices**

Lack of financial literacy refers to an individual's inability to understand, analyze, and make wise decisions regarding financial aspects. Financial literacy includes knowledge of basic financial concepts such as money management, investment, savings, risk, and data-driven decision-making, [19]. Individuals who have low financial literacy tend to believe more easily in the promise of big returns in a short period of time, without understanding that high risks often accompany those returns. This often makes them unable to recognize the signs of fraud in Ponzi schemes, money games, or dishonest multi-level marketing (MLM) practices.

Ponzi schemes are investment scams that pay profits to initial investors using funds from new investors instead of real business results, [20]. Ponzi/pyramid schemes feature commissions or bonuses based on network building rather than product sales, with expensive, low-quality products that have no market value, [21]. Uniquely, the longevity of these Ponzi schemes is limited by the number of participants. These schemes can last longer if their designers establish new sources of income in other areas and achieve maximum participation in those areas. Problems arise when the promised returns require more participants. This is because the faster the promised returns, the faster new investors must be found. This activity is a continuous chain. Thus, less financially savvy individuals often fail to recognize the unsustainable nature of this model.

Money games, on the other hand, are a form of fraud where participants are asked to give money to others in the hope of receiving profits from new members. Illegal investment practices involving money games continue to grow. In Indonesia, for example, the "TikTok E-Cash" application is a platform that offers easy money-making opportunities. Users earn money by purchasing membership packages, following accounts, and

liking videos on TikTok. More than 500,000 people joined in the hope of high returns, but "TikTok E-Cash" has significant risks due to the unknown source of fund management and the absence of legal authorization.

After the Indonesian government, through the Financial Services Authority investigated "TikTok E-Cash". Eventually, it found that the app was conducting illegal public fund collection and investment management. As a result, the application was blocked on February 2, 2021, in collaboration with the Ministry of Communication and Information. The identities of the perpetrators are still unknown, and they fled with the investors' money. Users reported losses ranging from hundreds of thousands to tens of millions of rupiah. This shows that a lack of financial literacy can make it difficult for people to distinguish money games from these investments. As they are often tempted by the opportunity to make a quick buck.

In fact, legal multi-level marketing (MLM) is a legitimate business model based on the sale of real products, but this practice is often distorted by some unscrupulous people into a pyramid scheme, emphasizing the recruitment of new members rather than the sale of products. Members who join at the beginning receive substantial income from recruiting new members, leading to unfair income calculations compared to a real MLM business. The scheme has no training program and focuses only on recruitment. Although pyramid schemes look slightly better than Ponzi schemes, both ultimately aim to defraud investors. The integration of these schemes into the MLM trade has created a negative stigma around MLM.

MLM companies that use Ponzi schemes and money games benefit members who join early, with products that only serve as a front for their fraudulent activities. Meanwhile, revenue is derived from administrative fees to recruit new members, [22]. This scheme is found in Taiwan, Malaysia, and Indonesia [23], [24]. Finally, the government strictly supervised the activities related to Multilevel marketing due to the many complaints from the public. This also shows that financial literacy is very important for individuals so that they are not easily trapped in schemes that lead to losses.

When individuals fall victim to Ponzi schemes, money games, or deceptive MLMs, they not only lose money but also trust in legitimate investments and business models. This can negatively impact local economies and hinder the growth of more financially independent communities. Based on this explanation, the hypotheses are as follows:

*H1: Ponzi schemes are associated with multi-level marketing.*

*H2: Ponzi schemes are associated with money games.*

*H3: Money games are associated with multi-level marketing.*

*H4: Financial literacy has a positive control on Ponzi schemes, money games, and multi-level marketing.*

From the arrangement of these hypotheses, we modeled the research framework through Figure 1.

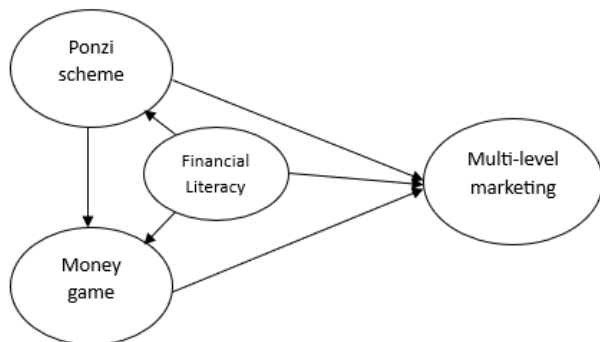


Fig. 1: Conceptual framework

### 3 Problem Solution

To solve the hypotheses that have been compiled, the researchers used a quantitative approach. Data was collected through questionnaires distributed to victims of money game scams, Ponzi schemes, and multi-level marketing in the Central Java and Yogyakarta regions during 2020-2023. The survey was administered to some respondents who agreed to participate, it was because some other respondents were not willing, and were still traumatized by the events experienced (victims of Ponzi scheme scams, money games, and multi-level marketing) and some other respondents did not want to be involved in this study for other reasons (respondents did not want to be contacted). Therefore, a simple random sampling technique was used for sample selection. The survey was conducted in the form of a questionnaire and the scoring used a Likert scale ranging from 1 to 5. We measure the variables of this study through Table 1.

The data analysis for this study employed structural equation modeling, [25]. The data was tested through a verification analysis process, which involved three key stages: assessing the outer model, evaluating the structural model (inner model), and testing the research hypotheses, [25].

From the questionnaires that have been distributed to respondents, and returned intact (the data is filled in completely), 150 data were

collected. These 150 data are victims of Ponzi scheme fraud as many as 60 respondents, victims of money games as many as 50 respondents, and 40 victims of multi-level marketing fraud. A demographic explanation of the respondents in the study is illustrated in the following Table 2.

Table 1. Variable Measurement

No.	Variable	Indicator
1	<b>Ponzi scheme</b>	The company's legality is questionable, the business model is suspicious, the promised profit levels are unreasonable, prospective members must pay a registration fee, and there is no risk protection guarantee for investors, [1].
2	<b>Money games</b>	The products offered are merely a disguise, profits are undisclosed or unreasonable, returns are promised to be high and achieved in a short time, and prospective members are required to pay a registration fee, [1].
3	<b>Multi-level marketing</b>	Company history, products being marketed, profit percentage offered, product quality, distribution channels, brand reputation, and promotional strategies, [1].
4	<b>Financial literacy</b>	Economic transactions, Shopping concept, Save concept, Financial crime, Beliefs regarding financial institutions (their products and services), [8].

Table 2. Characteristic respondent

		Gender		Total
		Man	Woman	
Last education	Diploma	7	9	16
	Bachelor degree	10	5	15
	High school	64	55	119
Total		81	69	150

Table 2 shows a total of 150 respondents, consisting of 81 men and 69 women. Based on the last level of education, respondents were classified into three groups:

#### 1. Diploma Education

A total of 16 respondents had a diploma education, with details of 7 men and 9 women.

#### 2. Bachelor degree education

A total of 15 respondents have completed undergraduate education, consisting of 10 men and 5 women.

### 3. High school education

The majority of respondents, 119 people, had a senior high school education. Of these, 64 were male and 55 were female.

The survey data shows that most victims of Ponzi schemes, money games, and multilevel marketing are senior high school graduates. Meanwhile, diploma and undergraduate graduates are still low. These demographic results also show that financial literacy education needs to be provided since the high school level, to prevent many victims and form a generation that is financially literate wisely.

The next test, the survey data that has been obtained, will be tested for validity and reliability to determine the accuracy of the tabulated data. The test results are described in Table 3.

Table 3. Validity and reliability test results

Variable	Item	Correlation (r)		Coefficient	
		r	Status	Alpha	Status
Ponzi Scheme	X11	0,351	valid	0,770	sufficient reliability
	X12	0,688	valid		
	X13	0,644	valid		
	X14	0,565	valid		
	X15	0,608	valid		
Money game	Y11	0,472	valid	0,721	sufficient reliability
	Y12	0,618	valid		
	Y13	0,732	valid		
	Y14	0,648	valid		
Multilevel marketing	Y21	0,654	valid	0,736	sufficient reliability
	Y22	0,336	valid		
	Y23	0,615	valid		
	Y24	0,767	valid		
	Y25	0,760	valid		
	Y26	0,742	valid		
	Y27	0,511	valid		
Financial literacy	C11	0,483	valid	0,720	sufficient reliability
	C12	0,498	valid		
	C13	0,628	valid		
	C14	0,678	valid		
	C15	0,548	valid		
	C16	0,512	valid		

The test results are in Table 3, the validity measurement is based on the r table value. If the value of r count > r table, the data is declared valid and vice versa. The calculation uses a degree of freedom (DF = N-2) or DF = 150-2 = 148, then the r table value of 148 is obtained at 0,161. The test results in Table 3 show that all questionnaire data are valid. While measuring reliability using Cronbach's alpha value. Reliability testing uses the Cronbach's Alpha formula, as follows.

$$r_x = \left( \frac{n}{n-1} \right) \left( 1 - \frac{\sum \sigma_t^2}{\sigma_t^2} \right)$$

$r_x$  = reliability sought

n = number of question items

$\sum \sigma_t^2$  = the sum of the variance of the scores of each item

$\sigma_t^2$  = total variance

Cronbach's Alpha Value Range, namely

- alpha < 0.50 low reliability
- 0.50 < alpha < 0.70 moderate reliability
- alpha > 0.70 then sufficient reliability
- alpha > 0.80 then strong reliability
- alpha > 0.90 then perfect reliability

The smaller the alpha value, the more unreliable the item. The standard used is alpha > 0.70 (sufficient reliability).

After the data is confirmed to be valid and reliable, the following are important tests, namely outer test, inner model test, and hypothesis testing. The results are as follows.

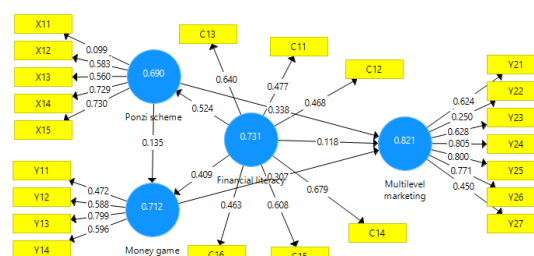


Fig. 2: Outer model test results

Figure 2 shows that the composite reliability values for the money game, multilevel marketing, and financial literacy variables are more than 0.70. This means that the variables have a good level of reliability, and are in accordance with the minimum value limit required.

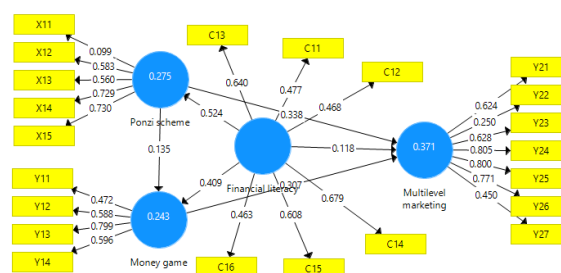


Fig. 3: Inner model test results

The results of the inner model test in Figure 3 are evaluated using the R-Square value. The results found that the R-Square value of each variable is 0.275 or 27.5%, 0.243 or 24.3%, and 0.371 or 37.1%. This result means that the influence of financial literacy control variables among the relationship between Ponzi scheme variables on multilevel marketing directly and through money games is still quite low. This means that there are still many other control variables that are thought to be stronger, which allows the next researcher to fill it in.

Finally, hypothesis testing is done by comparing the calculated t value with the t table value, when the calculated t value is higher than the t table, it is concluded that there is a significant relationship between variables, but conversely, if the calculated t value is less than the t table, there is no significant relationship between variables. With 150 data, the t table value (=5%) obtained based on the Rules of thumb is 1.975. This value then becomes a guideline for detecting the relationship between the variables that have been tested in Figure 4, Figure 5 below and Table 4 in Appendix.

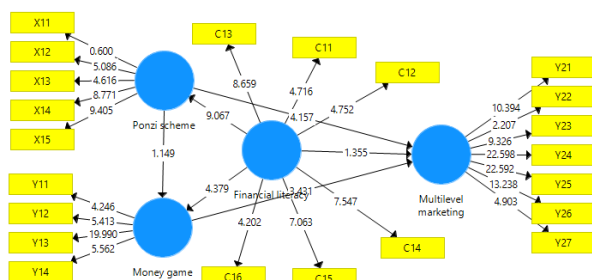


Fig. 4: Hypothesis Test Results (t-count)

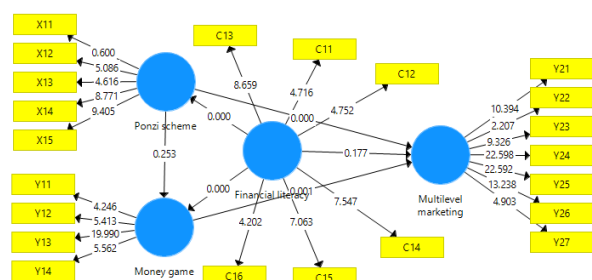


Fig. 5: Hypothesis Test Results (p-value)

The results of testing the first hypothesis show a t-count value of 4,157 and a p-value of 0.000, which means that this relationship is significant. That is, there is a strong influence between Ponzi schemes and MLM. This suggests that some elements of Ponzi schemes can be found in MLM practices, especially in recruitment structures and hierarchy-based incentives. This finding also raises the stigma that the MLM business model running in Indonesia,

some of its practices use Ponzi schemes. The findings of this study support previous findings, [1].

Testing the second hypothesis, with a t-count of 1.149 and a p-value of 0.253, this hypothesis is not significant. This suggests that the relationship between Ponzi schemes and money games is not strong enough to be statistically recognized. There may be other factors that significantly differentiate the two, such as operational mechanisms or laws in Indonesia. This finding is different from previous research, [1].

The results of the third hypothesis test showed a t-count value of 3.431 and a p-value of 0.001, which means this relationship is significant. This relationship indicates that some practices in money games may resemble elements in MLM, such as the collection of initial funds and the promise of return on investment. This finding raises the stigma that MLM business models running in Indonesia, some of its practices not only use Ponzi schemes but also money games. The findings of this study support previous findings, [1].

The fourth hypothesis test using the financial literacy variable as a control variable shows that financial literacy is still too weak in influencing the relationship between the variables tested (Ponzi scheme, Money game, and Multilevel marketing), this strengthens the stigma that in general, the level of understanding of financial literacy owned by respondents (victims) is still lacking or even non-existent. This makes it easy for the perpetrators of Ponzi schemes, money games, and multilevel marketing to target them (potential victims) to join the membership because of the lure of high and fast bonuses. On the other hand, data from respondents in this study shows that most victims of Ponzi schemes, money games, and multilevel marketing are high school graduates. In Indonesia, learning about financial literacy is still lacking at the high school level, even in some universities. This is a gap that needs to be closed immediately by the government and educational institutions by working together and developing an educational curriculum for learning about financial literacy from an early age.

The results of this study provide several important implications, for the government, educational institutions, and the wider community, including:

#### 1. Improving Financial Literacy

The low level of financial literacy among the public, especially high school graduates, is a major loophole exploited by perpetrators of fraud based on Ponzi schemes, money games, and illegal MLM. This implication confirms

the importance of an integrated financial literacy education program at the high school and college levels to increase public understanding of investment risks.

## 2. Strengthening Regulation and Law Enforcement

Despite the existence of regulations such as Law No. 7/2014 and MOT 70/2019, cases of fraud with Ponzi schemes and money games are still common. This research implies the need to strengthen regulations and more effective law enforcement mechanisms, including monitoring suspicious MLM activities.

## 3. Stigma against MLM

The finding that some MLM practices in Indonesia have elements of Ponzi schemes and money games suggests the need for strict supervision of MLM companies to protect the image of the industry and prevent public losses.

## 4. Support for Fraud Victims

Many fraud victims are still traumatized, and psychological rehabilitation programs and access to safer financial resources are needed to help them recover from their losses.

## 5. The Role of Technology and Social Media

The research also highlights that social media is often a key tool in marketing fraudulent schemes. Therefore, there is a need for additional regulation on the use of social media for investment activities, including cooperation with digital platforms to detect and prevent illegal activities.

# 4 Conclusion

This research provides important insights into the relationship between Ponzi schemes, money games, and illegal MLM in Indonesia. Key findings include the linkage between Ponzi and MLM, the Linkage between Money Games and MLM, and Low Financial Literacy.

The first test result concluded that Ponzi scheme elements are found in the recruitment structure and hierarchy-based incentives in some MLM practices in Indonesia, this certainly worsens the stigma against this business model in the future. Even the third test concluded that some practices in money games also resemble elements of illegal MLM, such as the collection of initial funds and the promise of quick profits. Low financial literacy proved to be a weak controlling factor in the relationship between Ponzi schemes, money games, and MLM, suggesting the need for improved public financial education (conclude the fourth hypothesis test).

Overall, the findings of this study underscore the need for re-evaluation of existing policies in Indonesia and the need for strategic measures to eradicate today's increasingly sophisticated financial fraud activities.

This research is not perfect and has several limitations that can be an opportunity for further research development, such as Limited Geographical Scope because this research was only conducted in the Central Java and Yogyakarta regions. This limits the generalizability of the research results to other regions in Indonesia that may have different social and economic dynamics. The respondents of this study were mostly high school graduates, thus not reflecting a population with higher levels of education and financial literacy. The control variables in this study only include financial literacy, which shows a relatively low influence on the relationship between variables. Future research could explore other control variables, such as the level of public trust in financial institutions, risk perception, or the level of access to digital information.

## Acknowledgement:

This research paper is proof that everywhere, humans are prone to cheating and deception. This research is dedicated to the entire Sekolah Tinggi Ilmu Ekonomi YKP Yogyakarta community. Learn financial literacy to avoid various modes of financial fraud.

## Declaration of Generative AI and AI-assisted Technologies in the Writing Process

During the preparation of this work the authors used Chat GPT in order to proofread the text. After using this tool/service, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

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### **Sources of Funding for Research Presented in a Scientific Article or Scientific Article Itself**

No funding was received for conducting this study.

### **Conflict of Interest**

The authors have no conflicts of interest to declare.

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## APPENDIX

Table 4. Hypothesis test results

						t count	P value			
H1	Ponzi schemes	→	Multilevel marketing			4,157	0,000	Sig.		
H2	Ponzi schemes	→	Money game			1,149	0,253	Not. Sig.		
H3	Money games	→	Multilevel marketing			3,431	0,001	Sig.		
H4	Financial literacy (C1)	→	Ponzi schemes	→	Money game	→	Multilevel marketing	1,355	0,177	Not Sig.