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Submission date: 23-Sep-2025 03:08PM (UTC+0300)
Submission ID: 2759629733
File name: 409-_Bistek--Similarity--.docx (107.14K)
Word count: 4390
Character count: 25771

Smart Monetization: Gen Z Teenagers' Tiktok and Youtube Income Optimization Through Portfolio Theory

ABSTRACT

This study analyzes the application of Markowitz Portfolio Theory to the investment management of Gen Z teenagers who earn income from digital platforms such as TikTok and YouTube in Palembang City. Using a quantitative approach with a sample of 300 student respondents as content creators, this study calculates expected return, variance, standard deviation, and covariance to form an optimal portfolio. The results show that the combination of income from TikTok and YouTube with equal weighting produces a portfolio return of 3.36 with lower risk (standard deviation 11.18) than individual assets. This research contributes to digital financial literacy by recommending diversification strategies to manage volatile income. The findings align with the low financial literacy of Indonesian youth (65.43% by 2024) and support the 90% financial inclusion target in South Sumatra.

Keywords: Markowitz Portfolio, Gen Z, Monetization, Investment Diversification,

INTRODUCTION

Digital Financial Literacy has created new economic opportunities (My, 2023), especially for Gen Z youth who are adept at utilizing technology and social media. Platforms such as TikTok and YouTube are not only a means of expression but also a promising source of income (Risnawati & Studi Manajemen, 2021). Data from We Are Social (2024) shows that Indonesia has more than 143 million YouTube users and 109 million TikTok users, with the majority of users aged 16-24 years. Through monetization features such as AdSense, endorsement, affiliation, and live gifts, teenagers are now able to earn millions to tens of millions of rupiah per month (Li et al., 2024). However, problems arise when teenagers' significant income is used more for lifestyle consumption rather than long-term investment. The OJK 2023 survey shows that the financial literacy of Indonesian teenagers is only 35%, lagging behind Malaysia (60%) and Singapore (70%). This low financial literacy causes adolescents to lack understanding of risk management and optimization of investment returns (Lusardi & Mitchell, 2014). Recent empirical studies in Indonesia have shown that financial literacy and risk tolerance significantly influence investment decisions among Generation Z, with PLS-SEM analysis of a sample of 120 respondents revealing a strong positive correlation (Tubastuvi et al., 2024). Additionally, specific survey data from the United States indicates that TikTok and Instagram users among Generation Z tend to experience higher financial satisfaction when using social media as a source of investment advice (Olajide & Pandey, 2024). Markowitz Portfolio Theory (1952) offers a solution through the concept of risk diversification by combining various assets that have low correlation. This strategy can help novice investors, including Gen Z teens, to

maximize returns with controlled risk (Mba et al., 2022). The application of portfolio theory allows teens with income from TikTok and YouTube to allocate income to various investment instruments according to risk profile. However, studies on this application specifically for teenage digital creators, especially Gen Z, are still very limited. As social media income is volatile, portfolio theory could potentially be a strategic solution for their financial risk management. This suggests a research gap that needs to be addressed. According to (Anggraini, Puspa & Cholid, 2022,Viana et al., 2022) teenagers who have basic knowledge about investment diversification tend to be wiser in managing their income. Investment diversification is a key principle in portfolio theory proposed by Markowitz (1952), emphasizing the importance of spreading investments across various financial instruments to reduce risk. However, understanding of this concept is still low among teenagers, especially in Palembang City, which has a rapidly growing creative economy. In 2024, the economy of South Sumatra Province grew by 5.03%, with the provision of accommodation and the eating and drinking sector recording the highest growth of 9.39% (BPS Prov. Sumatera Selatan, n.d.). This growth reflects increased economic activity, including in the creative economy sector, which involves teenagers as the main actors. However, the level of financial literacy among Palembang youth still requires special attention. The South Sumatra Provincial Government targets the level of financial literacy and inclusion to reach 90% by 2024 (Husnul Iga Puspita, n.d.). Although financial education efforts have been made, such as financial literacy activities organized by the Indonesian Securities Companies Association in collaboration with the Indonesia Stock Exchange in Palembang in April 2024 (Asosiasi Perusahaan Efek Indonesia, n.d.). The challenges in improving financial literacy among teenagers are still significant. The Financial Services Authority and the Central Bureau of Statistics have also conducted a National Survey on Financial Literacy and Inclusion (SNLIK) in 2024 to measure the level of financial literacy and inclusion of Indonesians Indonesia (Otoritas Jasa Keuangan, n.d.). However, specific data on the financial literacy of adolescents in Palembang, especially those involved in the digital creative industry, is still limited. Therefore, this research is important to explore the extent to which teenagers in Palembang City understand and apply the concept of investment diversification based on Markowitz portfolio theory in managing their income. The results of this study are expected to provide insight into the financial literacy patterns of adolescents in the digital era and provide recommendations for financial institutions and local governments in improving investment education for the younger generation in Palembang City.

In the digital age, social media platforms such as TikTok and YouTube have become a major

source of income for many Gen Z teens. As the creator economy develops, content monetization becomes an increasingly complex and dynamic aspect (Kopf, 2020). In recent years, TikTok and YouTube have become the main source of income for Gen Z teens, reflecting the shift towards a creator-based digital economy.

Monetization, namely Social media monetization, refers to the process of generating revenue through social media platforms by utilizing available content, audiences, or features (Bruce et al., 2023). Indicators of social media monetization are advertising revenue, product or service sales, sponsorship and endorsement, subscriptions or donations, and affiliate marketing (Hariyanto & Putra, 2022, Nur'aini, 2021,Ye et al., 2021).

Income, namely income from YouTube and TikTok monetization, where someone has the opportunity to make money from the number of people viewing videos and advertisements displayed, YouTube and TikTok users who upload content will be fitted with ads from Google, then the content creator will get wages (Fitriani, 2021).

A portfolio is a collection of investment instruments formed to fulfill a general investment objective. In making investment decisions, usually rational investors will choose the optimal portfolio, because they always want the maximum level of retum from their investment (Bunga Wahyu Ningsih & Muhamad Helmi, 2021). Portfolio indicators are seen from investment return and risk (Kiky et al., 2022).

This research topic has been conducted by several previous studies, but has not comprehensively integrated aspects of financial literacy, social media income, and portfolio-based investment strategies. As the majority of young people in Asia, including in Indonesia, have a low level of financial literacy, they tend to have difficulties in making rational investment decisions (Zhu, 2024, Lal et al., 2023, Trivani & Soleha, 2023, Khan et al., 2024).

According to (Rieder et al., 2023), content creators are strongly influenced by platform algorithms and content performance. However, the focus of these studies only reaches the income aspect, without touching on how creators manage their income for long-term needs such as investment (Hua et al., 2022). The study (Chai et al., 2023) emphasizes the importance of income diversification for digital businesses as a risk mitigation strategy, but the study does not target individual teenagers or digital creators as the research population.

Research conducted by (Sriyono et al., 2021) and (Kurniati et al., 2025) shows that portfolio theory is effective for determining stock investment combinations for novice student investors. However, it has not considered non-conventional sources of income such as digital content monetization. Although digital financial literacy is increasing, its impact on the investment practices of Indonesia's young generation is still minimal.

Based on the results of these studies, it can be concluded that there is no research that directly applies Markowitz Portfolio Theory to manage Gen Z teenagers' digital income from TikTok and YouTube. In addition, there is no practical model based on primary data specifically designed for teenage creators as digital economy actors.

The novelty of this research lies in the direct application of Markowitz Portfolio Theory to volatile digital income, with a focus on Indonesian Gen Z teenagers. This research develops a return and risk-based investment diversification model as an applicable digital financial literacy guide, while providing scientific contributions and practical outputs for young content creators in managing finances in a smart and sustainable manner.

Based on this background, this study aims to analyze the application of portfolio theory in the investment management of Gen Z teenagers who earn income from TikTok and YouTube. Furthermore, this study seeks to formulate appropriate diversification strategies and provide practical recommendations to improve teenagers' financial literacy. Thus, it is hoped that teenagers will not only be able to monetize their content intelligently, but also manage the proceeds wisely for the future:

How to analyze the application of Markowitz Portfolio Theory from Tiktok and YouTube income in the investment management of Gen Z teenagers?

What is the most suitable investment diversification strategy for Gen Z teenagers based on the results of portfolio analysis?

RESEARCH METHOD

The research method uses quantitative methods to understand the monetisation patterns that are active as content creators on TikTok and YouTube with data sources obtained through questionnaires distributed to students and university students in Palembang city, who are the population, for sample selection using the Convenience Sampling technique, as many as 300 respondents, with the Slovin technique. Before analysis, the questionnaire instrument was tested for validity and reliability first, then descriptive analysis was carried out, namely, processing and presenting data in the form of a narrative summary. To analyze the investment portfolio, namely by calculating the expected return of each tiktok and YouTube income, and calculating the variance and standard deviation to measure income risk, then calculating the portfolio of Tiktok and YouTube income using the Markowitz model.

RESULTS AND DISCUSSION

Validity and Reliability Test Results

The results of the validity and reliability tests show that the questionnaire used in this study has good quality to measure the variables studied, with a main sample of 300 respondents of content creator students in Palembang City. The validity test was conducted using Pearson

correlation to ensure that each questionnaire item accurately measures the intended construct. The questionnaire covered four main dimensions: (1) TikTok and YouTube Earnings, (2) Investment and Financial Management, (3) Application of Markowitz Portfolio Theory, and (4) Gen Z Investment Diversification Strategy. The criterion for validity is that the Pearson correlation value (r) must be greater than the r-table, which for a sample of 300 respondents at a significance level of α=0.05 is around 0.113 (based on the r distribution table with df=298).

The following are the results of the validity test for each dimension based on a sample of 300 respondents:

Table 1. Validity Test

No	TikTok and YouTube Income	Investment and Financial Management	Application of Markowitz Portfolio Theory	Gen Z Investment Diversification Strategy
1	0.871	0.777	0.710	0.830
2	0.927	0.741	0.866	0.839
3	0.897	0.698	0.864	0.852
4	0.870	0.770	0.861	0.884
5	0.853	0.796	0.814	0.870

TikTok and YouTube earnings: The Pearson correlation values for the five items range from 0.853 to 0.927, well above the r-table (0.113), indicating that all items are valid in measuring the monetization and revenue patterns of the digital platforms. The highest correlation value (0.927) of the second item indicates that this item is particularly strong in capturing revenue data from TikTok and YouTube.

Investment and Financial Management: Correlation values ranged from 0.698 to 0.796, with the lowest item (0.698) still well above the r-table, confirming the validity of the items in measuring respondents' investment and financial management behavior. This value reflects that these items accurately describe how respondents manage their income.

Application of Markowitz Portfolio Theory: Correlation values between 0.710 to 0.866, all of which are valid as they exceed the r-table, indicate that these items are able to measure respondents' understanding of the concept of risk diversification and portfolio management based on the Markowitz theory.

Gen Z Investment Diversification Strategies: Correlation values ranged from 0.830 to 0.884, confirming that these items are highly valid in evaluating relevant investment diversification strategies for Gen Z youth, with the fourth item (0.884) being the strongest.

The reliability test was conducted using Cronbach's Alpha to measure the internal consistency of the instrument, with the criteria being reliable if the Alpha value is > 0.7. The

results of the reliability test based on a sample of 300 respondents are as follows:

Table 2. Reliability Test

Dimension	Cronbach's Alpha
TikTok and YouTube Earnings	0,929
Investment and Financial Management	0,811
Application of Markowitz Portfolio Theory	0,879
Gen Z Investment Diversification Strategy	0,907

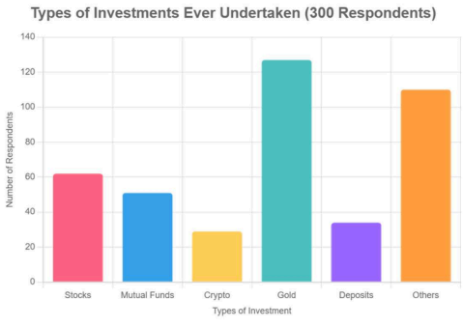
TikTok and YouTube Earnings: The Cronbach's Alpha value of 0.929 indicates very high reliability, indicating that the items in this dimension are highly consistent and can be trusted to measure digital monetization patterns.

Investment and Financial Management: Alpha value of 0.811 indicates good reliability, ensuring that the items in this dimension are consistent in measuring respondents' financial behavior.

Application of Markowitz Portfolio Theory: Alpha value of 0.879 reflects strong reliability, confirming that these items are reliable in evaluating the understanding of portfolio concepts.

Gen Z Investment Diversification Strategy: Alpha value of 0.907 shows excellent reliability, signaling that the items in this dimension are highly coherent in measuring relevant diversification strategies.

Figure 1: Types of Investments Made by Respondents



Based on data obtained from a survey of 300 Gen Z teenage respondents in Palembang City, the distribution of types of investments that have been made shows significant variations between categories. The bar chart presented illustrates the proportion of respondents for each type of investment, with the percentage calculated based on the total respondents. The results show that gold is the most popular type of investment, with 127 respondents or 42.33% of the total sample. The high preference for gold may reflect teenagers' perception of gold as a relatively safe and inflation-proof investment instrument, which is often the traditional choice among Indonesians. The "Other" category follows with a significant number of 110 respondents or 36.67%. This category likely includes various forms of informal or alternative investments that are not covered by the main options, such as small-scale property investments, term savings, or micro-enterprises, indicating a diversification of interest beyond conventional instruments. Stocks occupy the third position with 62 respondents or 20.67%, indicating an interest in investing in the capital market, although the percentage is still relatively low compared to gold and other categories. This may be related to the limited level of financial literacy among teenagers, as supported by the OJK 2023 Survey data shows that the financial literacy of Indonesian teenagers is only 35%.

Mutual funds were chosen by 51 respondents or 17.00%, indicating a moderate adoption of professionally managed investment instruments. Deposits, with 34 respondents or 11.33%, showed a smaller preference, likely due to lower rates of return compared to other options such as gold or stocks. Meanwhile, crypto was the least preferred option, with only 29 respondents or 9.67%, which could reflect a perception of high risk or a lack of understanding of technology-based investments among Palembang teenagers. Overall, this distribution highlights that gold dominates the investment preferences of Gen Z youth, followed by other categories that reflect flexibility of choice, while modern instruments such as stocks, mutual funds, deposits, and crypto still have more limited adoption. This phenomenon is in line with previous research findings that suggest low financial literacy influences conservative investment choices (OJK, 2023). This result also confirms the need for more intensive financial education to expand teenagers' understanding of investment diversification, especially capital market-based instruments that can support the application of Markowitz Portfolio Theory for optimal risk management.

Calculation of Return and Risk

Table 3. Return and Risk Data from Tiktok and Youtube Revenue

Pendapatan	∑ Rit	E(Ri)	Variance	Standard Deviation	Covariance Tiktok-Youtube
Tiktok	1281,76	4,27	5494,67	74,13	102,8457
Youtube	734,45	2,45	1804,09	42,47	

Based on data obtained from a survey of 300 Gen Z teenage respondents in Palembang City who are active as content creators on TikTok and YouTube, the analysis shows different patterns of return and risk (measured through variance and standard deviation) between the two platforms. Income from TikTok shows an expected return (E(Ri)) of 4.27, which is higher than YouTube's 2.45. This reflects TikTok's greater earning potential, possibly due to monetization features such as live gifts and endorsements that are more dynamic and dependent on real-time interaction with the audience, resulting in a ∑ Rit (cumulative total return) of 1,281.76. However, this higher return comes with significantly greater risk, with a variance of 5,494.67 and a standard deviation of 74.13. This standard deviation indicates high fluctuations in earnings, which could be due to reliance on the platform's fickle algorithms and unpredictable viral trends, so earnings could spike or drop drastically from month to month.

In contrast, income from YouTube shows a lower expected return (2.45) with ∑ a Rit of 734.45, but more manageable risk, with a variance of 1,804.09 and a standard deviation of 42.47. These characteristics make YouTube a relatively more stable source of income for Gen Z teens, especially through AdSense monetization that relies on long-term views and evergreen content, although its scalability potential is slower than TikTok. In theory, expected return is defined as the expected value of an asset's return, calculated as a weighted average of possible outcomes, while risk is measured through variance as the average squared deviation of expected return, or its standard deviation as a measure of dispersion. The use of variance as a proxy for risk was chosen because it is able to mathematically capture uncertainty, where rational investors tend to maximize return while minimizing variance. These findings are consistent with empirical regression analysis from national surveys, which show that young investors who utilize social media platforms exhibit variation in the balance of risk and return, with platforms such as Twitter influencing value-based diversification (Joseph & Ouyang, 2025).

Table 4. Calculation of Tiktok and Youtube Revenue Portfolio

Revenue	∑Rit	E(Ri)	Weight	Portofolio Return	Description
Tiktok	1281,76	4,27	0,5	2,136264702	
Youtube	734,45	2,45	0,5	1,224090194	
				3,360354896	E(Rp)
				124,9387209	Var.Portofolio
				11,17759907	Std. Deviation of portofolio

Furthermore, the portfolio discussion combines revenue from TikTok and YouTube with an allocation weight of 0.5 each (equal weighting), resulting in a portfolio return (E(Rp)) of 3.36, which is a weighted average of the individual returns (TikTok contribution: 2.14 and YouTube: 1.22). This return is lower than the return of TikTok alone but higher than YouTube, indicating a reasonable compromise to achieve equilibrium. More importantly, the portfolio risk is significantly reduced, with a portfolio variance of only 124.94 and a standard deviation of 11.18, much lower than the individual risks of TikTok (74.13) or YouTube (42.47). This risk reduction is due to the relatively low covariance between TikTok and YouTube of 102.8457, which results in a correlation coefficient of around 0.033 (calculated as the covariance divided by the product of their standard deviations). This low correlation indicates that the revenue fluctuations of the two platforms do not move synchronously, so their combination creates an effective diversification effect.

In theory, covariance plays a crucial role in portfolio risk, where portfolio variance is calculated as $\sum\sum$ Xi Xj σij (where σij is the covariance between assets i and j), and optimal diversification occurs when assets are combined with low or negative covariance to reduce overall risk without proportionally sacrificing return. This model establishes an efficient frontier, where the optimal portfolio is the one that offers the highest return for a given level of risk, and its application to volatile income, such as from social media, proves that Gen Z teens can manage their finances more wisely through diversification, rather than relying solely on one platform. These results support the recommendation for young digital creators in Palembang to proportionally allocate income to other investment instruments (such as stocks or mutual funds) to further expand diversification, in line with the goal of increasing financial literacy to a target of 90% by 2025.

From a theoretical perspective, the results of this analysis are in line with the Modern Portfolio Theory (MPT) proposed by Harry Markowitz in

1952, which emphasizes that rational investors will choose the optimal portfolio to maximize return by minimizing risk through diversification of assets that have low correlation. The higher expected return on TikTok with greater risk reflects the risk-return trade-off, where assets with high volatility tend to offer greater return potential, but require careful risk management to avoid significant losses. In addition, the reduction in portfolio risk through the combination of TikTok and YouTube demonstrates the effectiveness of diversification, where low covariances between assets reduce the overall variance, thus creating a portfolio that is on the efficient frontier that represents the optimal combination of return and risk. In the context of novice investors such as Gen Z teenagers, this application of the Markowitz model can be tailored to their risk profile (conservative, moderate, or aggressive), enabling a safer and more sustainable asset allocation, especially for volatile digital income. Furthermore, this portfolio optimization not only minimizes unsystematic risk through diversification but also supports asset selection based on historical data to achieve mean-variance balance, as applied to investment instruments in the Indonesian capital market.

One relevant study is (Saputra et al., 2025), which designs financial math learning by integrating Markowitz Portfolio Theory and technology-based stock investment simulation. The study shows that this approach enhances students' understanding of diversification, expected return, and risk management through Markowitz's mean-variance model, where students (often including Gen Z students) gain hands-on experience in building optimal portfolios using historical stock data from digital platforms. This finding aligns with our results, where the low covariance (102.8457) between TikTok and YouTube revenues allows for a significant reduction in portfolio risk, while maintaining moderate returns. Technology integration in investment simulation supports diversification recommendations to manage Gen Z's volatile income.

Another supportive study is (Mishra et al., 2024), which highlights the impact of digital financial literacy on financial decisions, where it explains 71% of the variance in investment decisions, including the risk-return analysis implicit in Markowitz Theory. These findings support our recommendation for digital education for Gen Z, as digital literacy can strengthen volatile income diversification, reduce reliance on a single platform, and support the efficient frontier. Despite the focus on women, it is relevant for Gen Z women as content creators in Palembang. This study shows that the understanding of risk and return, as applied to the TikTok-YouTube portfolio with a standard deviation of 11.18, can be improved through digital education.

Gen Z Investment Diversification Strategy

Gen Z's Investment Diversification Strategy focuses on spreading assets to minimize the risk of volatile income from digital platforms such as TikTok and YouTube, by applying the principles

of Markowitz Portfolio Theory. The research shows that the equal weighting combination (50% TikTok and 50% YouTube) generates a portfolio return of 3.36 with a standard deviation of risk of 11.18, much lower than the individual risks of TikTok (74.13) and YouTube (42.47). The low covariance between the two platforms (102.8457) allows for effective diversification, reducing volatility by 83% compared to TikTok alone, while maintaining moderate returns. For Gen Z, with low financial literacy to OJK's 2023 data, of only 35%. This strategy recommends portfolio allocation as follows: 40-50% to conservative assets such as gold (chosen by 42.33% of respondents) or time deposits (11.33%), 20-30% to stocks or mutual funds for long-term growth, and 10-20% to high-risk assets such as crypto (9.67% of respondents). This approach is tailored to Gen Z's risk profile, which is conservative (focus on YouTube stability and gold), moderate (combination of TikTok-YouTube with mutual funds), or aggressive (dominant TikTok with crypto). A study by (Tania & Tjhin, 2025) found that digital literacy influences financial attitudes and intention to use investment apps among Gen Z, with this literacy driving adoption of platforms for financial management. This strategy supports sustainable financial management and the 90% financial inclusion target in South Sumatra by 2024, while addressing the low national financial literacy of 65.43% (Otoritas Jasa Keuangan, 2024) through Markowitz's efficient frontier-based digital education. According to (Sesri Sellinai et al., 2025), although young investors face significant risks, improving their financial literacy can help them make better investment decisions. mpirical correlations from a survey of young people in Mumbai (n=151) show that financial advertising on social media has a positive impact on investment tendencies, but can encourage riskier decision-making, thus supporting the need for diversification strategies as proposed in the Markowitz model (Isshikaa Kaur Jaggi & Rakesh Nair, 2024)

Generation Z is proactively improving their financial literacy through self-learning, such as taking online courses or utilizing similar platforms. Meanwhile, financial institutions can support the improvement of Generation Z's digital financial literacy by providing platforms that are easily accessible and suitable for their needs (Lieanto & Kohardinata, 2025).

CONCLUSION

Based on the results of the discussion, the research conclusions are summarized in the following points:

Effectiveness of Markowitz Portfolio Theory: The application of Markowitz Portfolio Theory proved effective in managing Gen Z teens' volatile income from TikTok and YouTube, with the optimal portfolio (weighted 0.5 each) generating an expected return of 3.36 and low risk (standard deviation 11.18), much more stable than individual assets (TikTok: 74.13; YouTube: 42.47).

Platform Income Characteristics: TikTok offers a higher expected return (4.27) but with a large risk (variance 5494.67), while YouTube is more stable with a return of 2.45 and a variance of 1804.09, showing a significant risk-return trade-off between the two platforms.

Diversification Benefits: The low covariance (102.8457) between TikTok and YouTube results in a correlation coefficient of 0.033, allowing for effective diversification that drastically reduces portfolio risk without proportionally sacrificing return, in accordance with the MPT principle.

Conservative Investment Preferences: Gen Z teens in Palembang tend to prefer conservative investments such as gold (42.33%), followed by the "other" category (36.67%), with low adoption of modern instruments such as stocks (20.67%), mutual funds (17.00%), and crypto (9.67%), reflecting limited financial literacy.

Financial Education Needs: Low financial literacy (65.43% nationally, lower for youth) emphasizes the need for intensive education to improve understanding of diversification and risk management, supporting the 90% financial inclusion target in South Sumatra.

Practical Recommendations: Youth creators are encouraged to allocate their income to investment instruments such as stocks and mutual funds for further diversification, with Markowitz-based models as a guide for sustainable financial management.

REFERENCES

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