Advances in Consumer Research
ISSN (Print): 0098-9258
ISSN(Online): 3079-1766

Vol. 2, Issue 2 (2025) *https://acr-journal.com/*

Understanding Risk Management Techniques Among Gen Z: Awareness, Adoption, and Challenges

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Cite this paper as: Dr. Pallavi Rallan, Sanskar Bhatia, Reyansh Jadhav, Yuvraj Singh, Saksham Shukla, Veer Bauva, Shreyanss Bhojani, (2025) Understanding Risk Management Techniques Among Gen Z: Awareness, Adoption, and Challenges *Advances in Consumer Research*, 2 (2), 1064-1075.

KEYWORDS

Gen Z Investors, Risk Management, Diversification, Hedging, Stop-Loss, Financial Literacy, ANOVA

ABSTRACT

Risk management involves strategies for protecting capital against any possible loss within trading. Some strategies include Position Sizing, Stop-Loss Orders, Take-Profit Orders, Diversification, Risk-to-Reward Ratio, Hedging, and Leverage control. Risk management is necessary to protect trading capital against heavy losses, thereby ensuring survival in the long run. It makes traders disciplined and less emotional when making decisions and thus helps them maintain performance gradually. The paper mainly talks about the understanding, acceptance, and challenges concerning risk management strategies such as Diversification, Hedging, and Stop-loss strategies among Gen-Z investors through survey methods, employing a quantitative cross-sectional design, this research purposely surveyed a representative sample of respondents within a stipulated time. This was followed by analysing data using statistical methods such as ANOVA and Tukey's HSD test. The results indicated that Diversification was known as the most familiar strategy, while Hedging was the least known. Stop-loss orders also have varied levels of adoption based on psychological bias acting against their usage, execution, or constraints of different platforms. Among the challenges identified in the survey were a lack of knowledge, difficulties, costs, and limited availability of advanced risk management tools that compromise good decision-making in financial investment. The strong recommendations include financial literacy as well as usability of investing tools, and access to risk management strategies and also to improve the chances of adoption include educational programs designed for Gen Z. By resolving these obstructions, Gen Z investors will establish an organized risk management framework that enables them to undertake sound financial decisions without greater exposure to the market and increased odds of long-term investment success. The study is designed to render practical insights toward bridging the gap between financial knowledge and the actual adoption of good risk management practices among younger investors

1. INTRODUCTION

In many ways, the financial world has been most changed with the arrival of Gen Z into the investment landscape. Gen Z, representing those born from the mid-'90s to early 2010s, has grown up in a digital-first era where access to financial markets has never been easier. In India alone, Gen Z comprises roughly 377 million individuals, making up the largest generational cohort, and will likely reach a spending power of $2 trillion by 2035, as opposed to $860 billion today. Unlike previous generations, who generally relied on institutional advisors, the new generation of investors is primarily self-directed and drawn to platforms such as Robinhood, Webull, and crypto exchanges like Binance and Coinbase. The meteoric rise of

decentralized finance or DeFi, zero-commission trading, and social-media-perpetuated investing has highlighted an unprecedented access to financial markets (Stulz, 2022). However, this friction-less access prompts serious questions on whether they truly comprehend and exercise basic risk management.Investing is a springboard to wealth building; however, investing also brings with it the risk of situations like market volatility, depreciation of assets, and a downturn in economy. Risk management, which is, in essence, an investor's ability to foresee losses and to get ready for them, is integral to financial sturdiness. The three basic techniques oft-highlighted are the concepts of diversification, hedging, and stop-loss. Diversification spreads exposure across different assets to reduce risk; hedging accepts that something may go wrong and uses instruments like options to offset this risk; and stop-loss orders will trigger and sell securities if their prices go down past a defined level (Bodie, 2018). These techniques became particularly pertinent during the market collapse in April 2025, when a 104% tariff was imposed on imports from China by the United States President Donald Trump. This led to the S&P 500, which declined over 10% within just two days, while the Dow Jones fell over 10% to enter bear territory. Investors without stop-loss protection or with a poorly diversified portfolio suffered terribly, whereas those using hedging strategies could have really benefitted in terms of avoiding major losses. Such harsh reminders should put every investor on alert that, if they do not pay attention to risk management, their portfolios can be taken out in the blink of an eye.This is especially concerning for Gen Z, whose decisions are often influenced by social media trends rather than conventional financial principles. A joint study by the CFA Institute and the FINRA Foundation finds that the significant chunk of Gen Z started investing when they were not older than 21, thanks to the easy accessibility to online mobile trading apps and the power of social media. Many are enamoured with high-risk securities, namely in cryptocurrencies, meme stocks, and NFTs, and seem to value hype over any strategy. Their actions are dictated by sites such as TikTok, Reddit, and Twitter, where fame counts far more than prudence (Lusardi & Mitchell, 2017). Even when they are acquainted with advanced technologies, such individuals usually lack financial education by formal training. Leora (2025) observed that they seem to show excessive confidence in algorithmic tools and automated strategies.Risk management by Gen Z is of great importance, not just for their financial growth, but for ensuring the market remains stable. In India, as high as 72% of Gen Z people aged 18-21 report equity as their main form of investment. Even at the level of Tier-3 cities in the country, around 62% said they prefer stock, thereby signifying an all-out democratizing movement in the investment world. As such group gradually becomes a dominant force in the investing arena, the collective decisions or actions made by them will have an imprint on the way the market acts (OECD, 2022). The influence that this group would exert will be a study forged by their extract of investment participation, which holds true if such contribution does not comprise risk awareness participation. Such forms of study enable educational institutions, financial institutions, and policymakers to come up with literacy programs that will strengthen responsible investing over time (Huston, 2010). Even though they are wonderful at communication digitally, the experience of Gen Z with protracted bear markets makes this even tougher, compounded by macroeconomic problems of inflation and heightened interest rates, raising questions about whether they are implementing diversification, hedging, and stop-loss techniques effectively. Hence this research intends to analyze the awareness of Gen Z and whether that, in turn, leads them in adopting such measures; while considering the various challenges they face in their attempts at risk management adoption.

2. LITERATURE REVIEW

Ample research has emerged with the growing involvement of Gen Z in financial markets regarding their investment behaviour, especially pertaining to risk management practices. By virtue of being digital natives, the behavioural patterns of Gen Z investors diverge from others in their investment styles due to tech-savviness, the influence of social media, and contrasting economies (H. K. Baker et al., 2017). However, studies show that, despite the largest share of participation in financial markets, the lowest awareness, acceptance, and challenges they face in the application of risk management tools are still a matter of concern (Vidhi, 2024). This Literature Review presents an exhaustive synthesis of studies pertaining to Gen Z retail investors' understanding, applications, and challenges concerning risk management from a diversification, hedging, and stop-loss perspective.

2.1 Awareness of Risk Management Techniques

Risk Awareness is a determining factor of effective decision-making in investments. Studies indicate that Gen Z investors tend to manifest risk awareness lower than that of older retail investors or institutional investors primarily due to a lesser experience and education in the field of financial markets (Lusardi & Mitchell, 2017). Even though there has been a growing number of financial literacy initiatives, studies have indicated that a big percentage of Gen Z investors trade stocks as per what is trendy in social media, not by fundamental risk evaluation (Goyal & Kumar, 2016). Moreover, the introduction of commission-free apps in investing through gamification has established a place where the considerations of risk often falter and tend to shift to the gambling side (Mention, 2020). Some other researchers have pointed out that while risk management and awareness are enhanced by formal financial education, structured learning really helps young investors understand concepts such as diversification and loss prevention (Bhatia, 2023; Fernandes et al., 2014).

Research about risk awareness among Gen Z usually points to a limited understanding of important risk management strategies like diversification, hedging, or stop-loss arrangements. While investment textbooks commonly refer to the idea of diversification, in terms of comprehension, it is still mostly rudimentary among young investors. Most do not know the difference between asset accumulation and real diversification (Bhatia, 2023; Lusardi & Mitchell, 2017). (D.A.T, 2020) and (Yamori & Ueyama, 2022) say that Gen Z know the term "diversification", but the reality is that very few apply that

knowledge with respect to risk reduction. In empirical evidence about hedging, it is not surprising to find that the portfolios of young investors dabble in speculation because they lack basic knowledge about derivatives and other hedging instruments (Bodie, 2018; C., 2022; Li et al., 2021). Financial influencers and trading platforms have fizzled the definition of hedging instruments by over-simplifying or misrepresenting it (Hayes & and Ben-Shmuel, 2024; Zhao & Li, 2024). As for stop-loss mechanisms, the gap is the same- while investors may know in general about stopping-losses, many actually underestimate how it strategically operates, and usually regard it as panic-selling or short-term tactics instead of a measure to safeguard from portfolio disasters (Fischbacher et al., 2017; Talpsepp & Vaarmets, 2019). In addition, psychological factors such as overconfidence, illusion of control, and loss aversion widen the gap between perceived awareness and use of these risk instruments in practice (Matallín-Sáez et al., 2022; Mention, 2020; Raut et al., 2020). Hence, along with the rise of financial information accessibility, the actual understanding of these three fundamental tools among Gen Z investors is vague and usually skewed.

2.2 Adoption of Risk Management Techniques

The other important aspect is the aspect of Risk Management Adoption among Gen Z investors. Relevant empirical evidence suggests that Diversification, an essential tool for risk mitigation, is underutilised by this cohort despite its benefits. Given high-risk reward expectations largely driven by social media narratives and speculation in investing, many Gen Z investors often opt for ideal or concentrated portfolios (Bali et al., 2021). While there are studies that indicate increased exposure to online investment communities is associated with higher interaction with risk management tools, the evidence is mixed as to their translation into actual practice (Baulkaran & Jain, 2024). Fractional investing has facilitated diversification, but without structured portfolio strategies, it continues to be ineffective for most young investors (Brockwell, 2021). Many young investors are of the opinion that their abilities to select stocks are best, which inhibits them from diversifying further (Raut et al., 2020).

Hedging, another important risk management tool, presents significant adoption challenges amongst Gen Z retail investors. Studies indicate that derivatives are very complicated financial instruments that are probably underutilised due to perceived higher knowledge barriers (Bodie et al., 2024). In fact, while institutional investors highly stockpile derivatives for their risk management practices, studies have shown that retail investors especially young ones usually lack the essential knowledge and confidence when it comes to hedging (C., 2022; Li et al., 2021). Some studies show that mobile trading applications have simplified the procedure of entering into hedging instruments, yet still, it has not made the whole crowd of Gen Z come under its influence (Saurav et al., 2024; Sumant et al., 2022).

Stop-loss mechanisms, another aspect of risk management, involve automatically selling the security once the price hits a predetermined level. Its acceptance among Gen Z investors is pretty mixed. Evidence indicates that while such orders serve to limit downside risk, their inconsistent application derives from ignorance and psychological biases (Talpsepp & Vaarmets, 2019). Studies show that younger investors can be notably loss-averse while in risk-seeking mode, creating a paradox that contributes to the inconsistent application of stop-loss orders (Fischbacher et al., 2017; Torno, 2022). Extensive debate on the efficiency of stop-loss strategies has been recorded in the financial literature as some studies affirm that stop-loss rules that are hard-coded may lead to suboptimal sales decisions during market volatility (H. Baker et al., 2017; Baviera & Santagostino Baldi, 2019).

2.3 Challenges of Risk Management Techniques

Dealing with the Challenges of Risk Management Adoption among Gen Z investors has many components: from educational to behavioural and technological barriers, financial illiteracy is one of the most significant obstacles to the practice of risk management (Lusardi et al., 2021). Research shows that in spite of the many online resources, the knowledge young investors possess regarding advanced risk-mitigating techniques remains superficial (Yamori & Ueyama, 2022). Furthermore, cognitive biases, such as herd mentality and recency bias, serve as impediments to effective risk management performance (Guiso et al., 2018; Hans et al., 2024). Moreover, those social media platforms, which become initial sources of financial information for Generation Z, deemphasise risk-conscious investing for speculative gains and even promote bad risk management decisions (Kaur, 2024; Zhao & Li, 2024).

2.4 Research Gaps and Future Directions

While the body of literature has exposed the financial behaviour and risk management strategies of Gen Z investors in detail, there are still many Research Gaps in understanding how their digital engagement affects the effectiveness of long-term risk management. Most of the existing studies have examined the level of awareness and adoption but have not examined the sustainability of those practices and their real impact on portfolio performance. Most existing literature has talked about social media in the context of investment decision-making but has provided limited analysis of how behavioural biases that are exacerbated on digital platforms might undermine any consistency in risk management. There is also a dearth of empirical investigations into whether tailored financial education interventions improve Gen Z's structured use of risk-mitigating tools away from pure theoretical knowledge. Flushing out these gaps is extremely important if the researchers are going to have better frameworks that incorporate digital behaviour with responsible investment strategies.

The extant literature on Gen Z retail investors and their risk management practices highlights a significant incongruity in the

awareness, uptake, and correct application of diversification, hedging, and stop-loss mechanisms. Future research should bore into the identification of interventions that enhance risk-conscious behaviour among young investors, with the use of digital platforms to seamlessly unite risk management to the investors' journey.

Research Problem

This study investigates the awareness, adoption, and challenges of risk management techniques—diversification, hedging, and stop-loss—among Generation Z investors.

Research Objectives

The objectives of this research are:

1. To assess awareness of the three risk management techniques—Diversification, Hedging, and Stop Loss—and examine whether awareness levels differ among these techniques.
2. To evaluate the adoption levels of these risk management techniques and analyse whether adoption rates vary across the three techniques.
3. To identify the challenges faced by Gen Z investors and analyse whether the perceived challenges differ across each risk management technique—Diversification, Hedging, and Stop-Loss.

Research Hypothesis

The hypotheses of this research are as follows:

H1: The awareness levels among the three risk management techniques-Diversification, Hedging and Stop Loss-are significantly different from one another.

H2: The adoption levels of Diversification, Hedging, and Stop-Loss differ significantly among Gen Z investors.

H3: There is a significant difference in the perceived challenges within each risk management technique.

3. METHODOLOGY RESEARCH DESIGN

This study uses a conclusive research design along with a cross-sectional approach to measure awareness, adoption and the challenges encountered by Gen Z investors regarding Diversification, Hedging and Stop-Loss, this study has employed a conclusive research design with a cross-sectional approach. A descriptive and comparative framework has been employed as the objective of the study was to compare differences rather than causation. The quantitative nature of the study is represented through the statistical techniques applied to analyse differences among the three risk management techniques. The standardisation ensures internal validity through consistency in measurement, and external validity can then be demonstrated with a sample that consists of diverse Gen Z investors to generalise the findings.

Data collection method

A online survey conducted via Google Forms was used to collect the primary data used in the research. The survey was used to gain an understanding of Gen Z investors' awareness, adoption, and challenges in implementing risk management techniques. The questionnaire was sent to respondents via social media platforms, including WhatsApp and Instagram. This allowed the researchers to reach a diverse set of Gen Z investors.The survey collected demographic data from the respondents, such as their age and the primary investment vehicle. Awareness was measured using multiple-choice questions, allowing respondents to select which risk management techniques applied to Diversification, Hedging, and Stop-Loss Strategies. The measure here was nominal, whereby responses were classified either as correct or incorrect. Adoption, on the other hand, was assessed by frequency and percentages regarding how often respondents rebalance their portfolios and what percentage of their portfolio they allocate to risk management strategies, using ratio scales. Likert scaling was applied to assess the challenges whereby respondents could indicate the extent to which they have encountered challenges such as complexity, costs, lack of knowledge, and accessibility problems.

Sampling Plan

The survey garnered responses from Gen Z investors who are actively investing in Stocks, Cryptocurrencies, commodities, mutual funds or any financial asset. Convenience sampling, a non-probability sampling technique was used. This method helped facilitate efficient access to respondents. The study used responses from 355 participants, primarily comprised of individuals residing in Mumbai.

Data Analysis

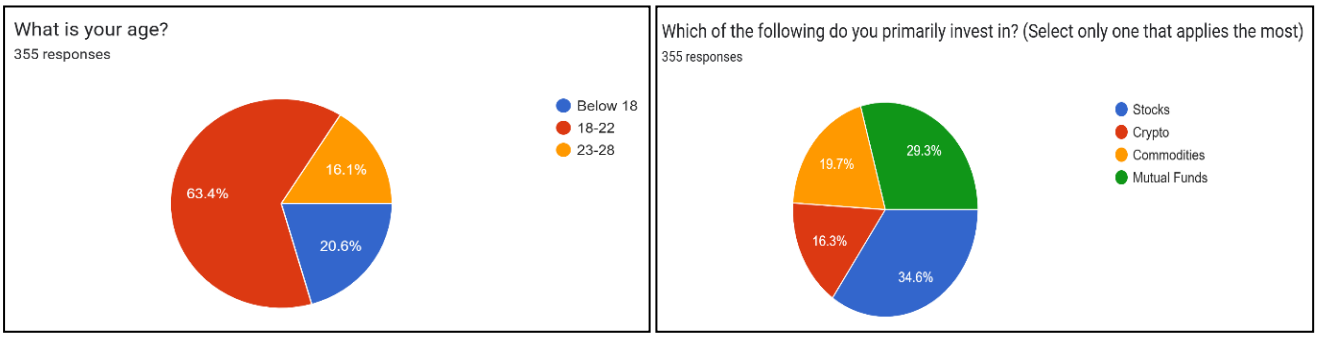
The collected responses were systematically coded to qualify for awareness, adoption, and challenges in risk management techniques. Awareness concerning these techniques—diversification, Hedging, and Stop-Loss—was measured using three questions each, wherein correct answers were coded as one and incorrect ones as zero. Scores were categorised as Low (≤33.33%), Medium (34-66.67%), and High (>66.67%). The adoption of risk management techniques was measured through questions asking about their tendency to use, such as trading percentage and portfolio rebalancing. An answer was scored

from 4 (most frequent) to 1 (least frequent), with a total adoption score of 8 given for each technique. As for challenges, participants rated them across specific impediments using a Likert scale ranging from "Very High" (5) to "Very Low" (1), focusing on the intensity levels of the perceived challenges for further analysis.The study then calculated the count highlighting the number of respondents using the strategy. The sum indicated the total score of respondents that use that strategy, and average represented the average score of the respondents. The variance shows the deviation of the respondents' score around the mean. Then, ANOVA (Analysis of Variance) was executed to critically compare the differences across the three risk management methods in terms of awareness and adoption. Tukey's HSD test was used for post-hoc analysis in cases where there were substantial differences in awareness and levels of adoption. ANOVA was also used to determine whether the challenges associated with each individual risk management strategy varied significantly. It helped to indicate whether there was a significant difference in awareness and adoption of strategies, as well as whether the difficulties faced in implementing each strategy differed. The researchers utilised Microsoft Excel for preliminary data planning and statistical analysis, including ANOVA and Tukey's HSD test.

Findings

7.1 Demographic of Sample

Figure 1: Demographics and Investment Choice of Sample



Source: Authors Analysis

By their age, respondents comprise a majority aged between 18 and 22 (63.4%), the second largest group aged below 18 (20.6%), and the smallest group aged 23-28 (16.1%).

By investment, 34.6% of the respondents show that their major investment is in stocks, followed by 29.3% in mutual funds, 19.7% in commodities, and 16.3% in crypto.

7.2Analysis of Awareness of Risk Management Techniques among Generation Z

This analysis aims to explore the awareness levels of three risk management techniques-Diversification, Hedging, and Stop loss-by comparing them on the basis of their rates of adoption. The scores received by every respondent were analysed using a single-factor ANOVA study to test whether any significant differences existed between the mean awareness scores of the techniques. Since a statistically significant difference was proven by ANOVA, Tukey's Honestly Significant Difference (HSD) test was used to determine where these differences occurred among the techniques.

Table 1: Count of Individuals Awareness Levels

Awareness Level	Diversification	Hedging	Stop Loss
High	57	13	26
Medium	41	39	54
Low	107	109	110
Total	205	161	190

Source: Authors Analysis

According to Table 1, respondents who use Diversification reported the highest awareness, with a rating of "High" (57), while the lowest ratings were given to Hedging (13). Stop Loss ranked in the middle, with 26 individuals having high awareness. Most of the respondents fell into the "Low" awareness category, and Hedging (109) and Stop Loss (110) narrowly surpassed Diversification (107). This implies that Diversification is the most recognised and widely marketed strategy, while hedging is the least understood strategy due to its complex nature and its connection to more sophisticated financial instruments.

ANOVA performed in Table 2 produced an F-value of 4.4567 with a corresponding p-value of 0.012, indicating that awareness of risk management techniques differs among themselves. The recorded means of awareness scores supported the alternative hypothesis (H1), with awareness ranging from high to low among the various techniques: 1.47 for diversification, 1.17 for hedging, and 1.31 for stop-loss. Tukey's HSD test was then used to identify where the difference existed. Tukey's HSD test indicated a significant difference between Diversification and Hedging (0.305 > threshold of 0.238), while differences between Diversification vs. Stop Loss (0.163) and Hedging vs. Stop Loss (0.143) were not significant. This implies that awareness levels regarding the techniques were unequal; that is, awareness would rank as follows: Diversification-the highest, while Hedging is rated the lowest.

Table 2: ANOVA Result

Groups	Count	Sum	Average	Variance
Diversification	205.00	302.00	1.47	1.06
Hedging	161.00	188.00	1.17	0.78
Stop Loss	190.00	249.00	1.31	0.99

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	8.51	2.00	4.26	4.46	0.01	3.01
Within Groups	528.25	553.00	0.96			
Total	536.77	555.00				

Source: Authors Analysis

Table 3: Tukey's Honestly Significant Difference (HSD) test Output

Absolute Difference	Mean Difference	HSD Value	Significance
Diversification vs. Hedging	0.31	0.24	Significant
Diversification vs. Stop Loss	0.16	0.24	Not Significant
Hedging vs. Stop Loss	0.14	0.24	Not Significant
Average Sample Size	185.33		
Standard Error	0.07		
Degrees of Freedom	553.00		
Q stat	3.32		

Source: Authors Analysis

The greater awareness of diversification stems from its emphasis on financial education and investment counselling, thereby making it more relevant to retail investors (van Rooij et al., 2011). In contrast, hedging with complex derivatives, such as options and futures, is not typically a topic in financial literacy programs (Bodie et al., 2024). This suggests that stop-loss strategies may have a similar level of awareness to other techniques, despite their frequent promotion among retail traders, despite little formal education on active risk management. (Barber & Odean, 2013). The results indicate a growing need for an extension of teaching advanced risk management tools in finance, as such exposure increases adoption and decision-making (Lusardi & Mitchell, 2014).

7.3 Analysis of Adoption of Risk Management Techniques among Generation Z

This analysis is intended to explore the degree to which Gen Z retail investors utilise various risk management strategies—Diversification, Hedging, and Stop Loss—and whether substantial differences exist in their adoption. Through investor behaviour analysis, the research attempts to determine which strategies are most widely adopted and whether some methods of risk management are significantly more popular than others.

The initial analysis step was to calculate the descriptive statistics, such as mean, variance, and total number of responses for each risk management approach.

From Table 4, Hedging had the highest score mean value (5.96), which meant that it was the most frequently applied risk management strategy among Gen Z investors. Diversification (5.09) and Stop Loss (5.12) also had comparable mean values, which meant that investors applied these strategies to an equal degree. Yet, the variance for Hedging was significantly greater (3.47), which meant that there was more variability in the way investors applied this strategy.

Table 4: Summary Statistics of Scores of Risk Management Strategies

Risk Management Strategy	Count (n)	Sum	Mean	Variance
Diversification	205	1044	5.09	1.76
Hedging	161	960	5.96	3.47
Stop Loss	190	973	5.12	1.48

Source: Authors Analysis

In order to find out if these differences were statistically significant, a single-factor ANOVA test was run, for which the results are presented in Table 5.

The F-value (19.42) is much larger than the critical F-value (3.012), and the p-value (<0.001) is much smaller than the conventional significance level (0.05). This indicates that there is a statistically significant difference in the use of risk management strategies among Gen Z investors. But although ANOVA informs us that differences do exist; it does not tell us which strategies differ significantly from one another.

Table 5 ANOVA Test Results

Source of Variation	Sum of Squares (SS)	Degrees of Freedom (df)	Mean Square (MS)	F-value	p-value	F Critical Value
Between Groups	83.97	2	41.98	19.42	0.0000	3.012
Within Groups	1195.23	553	2.16			
Total	1279.20	555				

Source: Authors Analysis

In order to establish which of the particular risk management strategies were significantly different in adoption, a Tukey's HSD test was carried out, the results of which are presented in Table 6.

Table 6: Tukey's HSD Test Results

Comparison	Mean Difference	HSD Value	Significance
Diversification vs. Hedging	0.870	0.3585	Significant
Diversification vs. Stop Loss	0.028	0.3585	Not Significant
Hedging vs. Stop Loss	0.842	0.3585	Significant

Source: Authors Analysis

The findings indicate that hedging differs from both Diversification and Stop-Loss Strategies, resulting in either active use or no use of this strategy at all, and hence, significant variation exists. Both Diversification and Stop-Loss Strategies do not

have a significant difference, meaning that investors implement these strategies to the same extent.

Hedging is the risk management strategy most uniquely applied by Gen Z investors. The high contrast between Hedging and the other two strategies implies that some investors highly prefer it, while others prefer not to use it at all. On the other hand, the convergence of Diversification and Stop Loss implies that these strategies are seen as substitutable or of equal importance in risk management (Lusardi & Mitchell, 2014).

7.4 Analysis of Challenges of Risk Management Techniques among Generation Z

This analysis aims to explore the challenges Gen Z faces related to risk management strategies—Diversification, Hedging, and Stop-Loss—and whether substantial differences exist within each risk management strategy. Through investor behaviour analysis, the research attempts to determine which challenges are most widely faced and whether some challenges of risk management are significantly more popular than others. To do this, an Analysis of Variance (ANOVA) was carried out. ANOVA is a statistical technique used to compare two or more means to see whether differences between groups are statistically significant. The initial analysis step was to calculate the descriptive statistics, such as the mean and standard deviation of responses for the challenges in diversification; the findings are shown in Table 7.

Table 7: Summary Statistics of challenges faced in diversification

Groups	Average	Standard deviation
Lack of knowledge about asset allocation	3.36	0.99
Limited options for diversification	3.35	1.06
High transaction fees	3.36	1.09
Uncertainty in choosing the assets within asset classes	3.49	1.05
Challenges in applying diversification strategies	3.30	1.04

Source: Authors Analysis

According to Table 7, the uncertainty in selecting assets within asset classes had the highest mean value (3.49), indicating that it was the most frequently encountered challenge in diversification among Gen Z investors. Other challenges faced by investors in diversification, as mentioned above, also had comparable mean values, which meant that investors faced these challenges to an equal degree. The standard deviation for these challenges is also similar, ranging from 0.99 to 1.09. To determine if there are any statistically significant differences in challenges faced during diversification, a single-factor ANOVA test was conducted, for which the findings are presented in Table 8.

Table 8: ANOVA Test Results of challenges in diversification strategies

Source of Variation-Diversification	SS	df	MS	F	P-value	F crit
Between Groups	3.46	4.00	0.87	0.79	0.53	2.38

Source: Authors AnalysisThe F-value (0.79) is smaller than the critical F-value (2.38), and the p-value (0.53) is greater than the significance level (0.05), therefore failing to reject the null hypothesis. This indicates that there is no statistically significant difference in the challenges faced in diversification strategies among Gen Z investors. These challenges are consistently faced by all Gen Z investors. Since the relationship is not significant, there is no need for researchers to perform Tuckey's HSD test, which would help the researchers identify which challenges differ from one another.

A similar analysis was done to identify the challenges faced in hedging and stop loss strategies of risk management. The results of the analysis are shown in Table 9 and Table 10.

Table 9: Summary Statistics of Challenges faced in Hedging

Groups	Average	Standard deviation
Understanding of the use of hedging	3.66	1.04
Cost of hedging strategies	3.55	1.05
Access to hedging tools	3.37	1.03
Complexity of hedging strategies	3.37	1.09
Application of hedging strategies	3.47	1.06

Source: Authors Analysis

Table 10: Summary Statistics of Challenges faced in Stop Loss

Groups	Average	Standard deviation
Incorrect execution of the order during high volatility	3.41	0.99
Difficulty in determining the right stop-loss	3.25	1.02
lack of confidence in stop-loss strategy	3.37	1.08
Platform limitations in placing stop-loss orders	3.42	0.99
Ineffective application of stop-loss orders	3.27	1.07

Source: Authors Analysis

As presented in Table 9, the most important challenge faced when using hedging is understanding its use and showcasing the complex nature of these financial products. The most significant challenge in stop-loss orders is platform limitations, such as execution delays, which can result in unexpected losses or missed opportunities. However, like diversification, the mean for challenges in hedging and stop loss orders is high and close to other challenges in the respective risk management techniques. The standard deviations of the groups are also very close to each other, with standard deviations ranging from 1.03 to 1.06 for challenges in hedging and from 0.99 to 1.08 for stop-loss orders.

Table 11: ANOVA Test Results of Challenges in Hedging Strategies

Source of Variation- Hedging	SS	df	MS	F	P-value	F crit
Between Groups	9.98	4.00	2.49	2.25	0.06	2.38

Source: Authors Analysis

To determine if there are statistically significant differences in challenges faced when hedging and placing stop-loss orders, a one-way ANOVA test was conducted. The findings are presented in Table 11 and Table 12.

Table 12: ANOVA Test Results of Challenges in Stop Loss Orders Strategies

Source of Variation- Stop Loss	SS	df	MS	F	P-value	F crit
Between Groups	4.73	4.00	1.18	1.11	0.35	2.38

Source: Authors Analysis

For challenges in hedging strategies, the p-value (0.06) is greater than the significance level (0.05), and therefore, the study fails to reject the null hypothesis. Similarly, for stop loss orders, the F-value (1.11) is smaller than the critical F-value (2.38), and the p-value (0.35) is greater than the conventional significance level (0.05); therefore, the null hypothesis is not rejected. Therefore, the challenges faced by Gen Z investors in their respective risk management strategies are similar, and there is no aspect of that risk management strategy that the investor feels is more challenging than the others. Also, since the average of

these challenges is high, all of them affect the investors majorly.

4. CONCLUSION AND RECOMMENDATIONS

The study focused on Generation Z in terms of awareness, adoption, and issues relating to risk management techniques, specifically diversification, hedging, and stop-loss mechanisms. Considerable variation in the level of awareness was produced between the techniques. To be precise, diversification was the most exciting risk management strategy to the respondents and got attention with financial literacy programs, while it was saddest hedging because of its complexity and high-level financial instruments. A fair level of awareness was attributed to stop-loss orders, yet psychological biases and lack of confidence in applying them made the process very inconsistent. Hedging was recognised, as it was the most applied through the comprehension that some investors are actively hedging while others reject hedging altogether. Diversification and stop-loss mechanisms had similar rates of adoption in that they offer easier comprehension and practical adoption. Nonetheless, major hurdles to efficient risk management were identified. Other major concerns included insufficient knowledge, complicated financial instruments, high costs, and limitations of the platforms themselves. These barriers led to erratic risk management practices, exposing Gen Z investors to potentially high losses. ANOVA and Tukey's HSD test confirmed significant differences in awareness and adoption levels of the three strategies, showing that the gaps should not require heavy intervention to bridge.

To improve risk management practices for Generation Z investors and address those challenges, specific suggestions can be made. First, increasing financial education programs with a 'Hedging and Stop-Loss mechanism' orientation can help to create a strong effect between awareness and its adoption. The integration of actual case studies, interactive learning modules, and real-time trading simulations would contribute to young investors' building a structured antifragile risk management approach. Second, financial platforms and brokers should assist easy entry into hedging tools by attaching educational materials and some friendly interfaces to mitigate perceived hardships. Thirdly, regulatory bodies and financial institutions should work together to reduce transaction costs relating to risk management techniques, especially to retail investors, to stimulate wider adoption. Fourthly, this can also be effective in promoting the best practices of risk management, considering how much influence social media and digital platforms have wielded over Gen Z on the latter's investment decisions. Platforms such as TikTok, Twitter, and Reddit can be used to put in place the exacting yet entertaining financial education content. Finally, creating more awareness among investors about the workings of Stop-Loss mechanisms dealing with issues of execution in the platform could shape their discipline while investing. This will go a long way in making their operations even more effective. Implementation of these measures will not only teach young investors. How to navigate financial markets more responsibly but also cut down on undue risk-taking behaviours, which only serve to increase volatility in markets. By educating a generation of investors who are both informed and conscious about taking risks, stability and the generation of wealth over the long term through investments will be enhanced.

5. LIMITATIONS

Even though this study provides a very useful insight into the risk management practices of Gen-Z retail investors, there were a few limitations to this research as well:

1. Objective Error: The objective error confines the study of only three risk management techniques-Diversification, Hedging, and Stop Loss-and excludes all other techniques.

2. Applicability Differences: Differences in financial literacy, geography, and economic conditions may influence ways of investing outside what is captured by this study.

3. Time Limitations: The findings of this research are only valid for the period that the data were collected, specifically March 2025, hence only valid with regard to investors' behaviour and market conditions pertaining solely to that particular time frame.

4. Sample Errors: The study is based on a sample of Generation Z investors, which does not survey the whole population. Therefore, it cannot be said to be a truly and fairly representative sample of the whole population.

5. Bias in Responses: The bias due to the non-probability convenience sampling, meaning the sample does not adequately represent the larger Gen Z investor population.

6. Limited Scope- The study did not include other demographics that could have had different risk management behaviours since it includes Gen Z investors only.

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