CHAPTER 44

Impact of Market Volatility on Portfolio Risk

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ABSTRACT

Impact of market volatility on portfolio risk.: This study explores how market instability influence it's impact on portfolio and how people react to this changes. The main aim of this study is to understand whether investors are aware about market volatilities. Using primary research method, the information is collected in form of feedback through survey that asks questions like how often respondents invest, how long they've been doing it, their reaction to market swings, and whether they feel anxious when markets fall. This study aims gives insight that whether there is awareness of market volatility risk and its effect on portfolio in investors and how they response to this fluctuation. The findings will help reveal how emotionally and practically people respond to volatile markets and what patterns exist across different groups. These insights could help financial advisors and individuals make better decisions in the face of changing market conditions. This study does not analysis effect of market ups and downs in numerical term, it analysis the human side of investors.

Keywords: Market volatility; Portfolio; Portfolio risk; Investors emotion.

1.0 Introduction

Market volatility refers to the changes or ups & downs in financial market. Sudden change in economic of country, changes in government financial policies, unpredictable situation (COVID 19, 2008 financial crisis), etc. It have a great effect on portfolio of the investors. Portfolio is the collection of various investment that is made by investors. The risk associated to portfolio due to changes in market condition is called as portfolio risk. The emotions of investors during market flucation have some what effect on their portfolio value. The primary objective of any investment portfolio is to generate returns while managing and mitigating risk. Financial market has always been very dynamic and unpredictable fluctuations. This changes or volatility has a great impact on investor's portfolio risk. Since unexpected changes in price can either leads to gain or results in losses. Investors do not always response sensibly towards this sudden movements of market.

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Maximum decisions are based on emotions such as anxiety, overconfidence or fear of loss. In addition, unawareness about market volatility and lack of sufficient knowledge can contribute to irrational decision making ability. This study explores and examine the impact of market volatility on portfolio risk and analyse how investors emotions and lack of knowledge play important role in making investment decision.

2.0 Objectives of the Study

- To find out how the ups & downs influence the risk factor on portfolio.
- To understand how market volatility affect investment market.
- To understand how emotions (anxiety, panic, etc) & investor's behaviour during market instability affect the portfolio of individual.
- To provide investor with better understanding of market volatility on portfolio.

3.0 Literature Review

Deshna Chatterjee & Kushal Nayyar (2024) "Investors Sentiments and Market Volatility: A Psychological perspective." This study highlight that investor's sentiments, driven by emotional factors like greed, regret, fear, and hope that are strongly influence by market volatility. This behavioural finance show that there are biases such as loss bearing fear or overconfidence that leads to irrationals decisions and market volatility. Research implies that emotions leads to the trends, crashes and instability of financial market.

Chidimma Maria (2024) "Behavioral biases influencing individual investment decisions Within volatile financial markets and economic cycles". This paper explores how investors not always make rational decisions. Instead, they are influenced by various behavioural factors (emotions such as anxiety, fear, greed, etc.). these emotions become more strong during market instability and often leads to poor investment decisions. The study highlights that traditional finance theories fails to identify and explain this behaviour where as, behavioural finance provides better knowledge. Darren Duxbury(2022) "Investor sentiment and the risk–return relation: A two-in- one approach". The study suggest that risk and returns should go together, but in reality it is opposite or shows mixed results. The investors emotions or feeling can disturb the pattern. While developed markets shows various responses depending on the events. The bad news impacts more strongly than good one. It conclude that investors emotion and sentiment have strong impact on portfolio risk.

4.0 Hypothesis of the Study

H_1: Market volatility significantly influences emotional decision marking by developing anxiety amongst the investors.

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H_2: Market volatility leads to emotional changes amongst the short-term investors.

5.0 Research Methodology

The method use for research is primary survey method, where data was randomly collected from 41 investors located in Nashik city. A structured questionnaire (google form) was designed that ask different questions related market volatility, investor's emotion and it's impact on portfolio decisions. The purpose of this study is to understand the effect of investor's sentiments during market volatility and it's impact on their decision making ability.

Reliability & validity Test: this is conducted to measure the reliability & internal consistency of the scale. Result of reliability tests shows the internal consistency based on collected data.

Table 1: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.772	.761	6

The reliability and validity test results are Cronbach's alpha score; it is 0.772 which is greater than 0.7 that shows a very high level of internal consistency in the data. Thus it is concluded that this questionnaires is accepted for further research and statistical analysis with a satisfactory level of reliability.

Table 2: Demographic Profile

Variables	Description	Frequency	Percentage
Gender	Male	26	63.41
	Female	15	36.58
	Total	**41**	**100**
Age	0-25	12	29.26
	25-35	7	17.07
	35-45	15	36.58
	45-55	6	14.63
	55-65	1	2.43
	65 & above	0	00
	Total	**41**	**100**
Education	School (still 12th)	8	19.51
	Graduate	23	56.09

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	Post graduate	8	19.51
	Professional Degree (CA, CS, etc.)	2	4.87
	Total	**41**	**100**
Occupation	Full time investors	2	4.87
	Part time investors	4	9.75
	Job	10	24.39
	Business & Self employeed	14	34.14
	Other	11	26.82
	Total	**41**	**100**
Annual Household Income	Below 2 lack	17	41.46
	2-4 lack	7	17.07
	4-6 lack	5	12.19
	6-8 lack	7	17.07
	8-10 lack	4	9.75
	Above 10 Lakhs	1	2.43
	Total	**41**	**100**

6.0 Hypothesis Testing

H_1: Market volatility significantly influences emotional decision marking by developing anxiety amongst the investors

Table 3: ANOVA

			Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Market volatility significantly influences emotional decision marking by developing anxiety amongst the investors	Between Groups	(Combined)	12.335	3	4.112	316.172	.008
		Linearity	9.960	1	9.960	5.261	.028
		Deviation from Linearity	2.374	2	1.187	.627	.540
	Within Groups		70.056	37	1.893		
	Total		82.390	40			

Table 4: Measures of Association

	R	R Squared	Eta	Eta Squared
Market volatility significantly influences emotional decision marking by developing anxiety amongst the investors	.348	.121	.387	.150

The above table no shows that the ANOVA value for Market volatility on emotional decision marking by developing anxiety amongst the investors. P-value is 0.008

which is higher than 0.05 at 95 per cent confidence level. It indicates that the Market volatility strongly influencing the emotional decision marking by developing anxiety amongst the investors. *Therefore, the null hypothesis is rejected and we accept that* Market volatility significantly influences emotional decision marking by developing anxiety amongst the investors. *F value is* 316.172 *which are greater than the table value of F (215.7073) indicates very good fit of the model.*

R square values of the above table specify how much market volatility causes the variation in emotional decision marking by developing anxiety amongst the investors. The R square value for market volatility is .121 which shows 12 per cent variation in emotional decision marking explained by developing anxiety amongst the investors, which is good resulting action. Whereas, the Eta Square value is 0.150, indicates a moderate association between market volatility and emotional decision marking by developing anxiety amongst the investors.

Table 5: Summary of Hypothesis Testing

Hypothesis1	F	Sig	R^2	η^2	ANOVA	Result
H_1: Market volatility significantly influences emotional decision marking by developing anxiety amongst the investors	316.172	.008	.121	.150	.008	Accepted

H_2: Market volatility leads to emotional changes amongst the short-term investors

Table 6: ANOVA

			Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Market volatility leads to emotional changes amongst the short term investors	Between Groups	(Combined)	1.258	2	.629	201.294	.047
		Linearity	.012	1	.012	.006	.940
		Deviation from Linearity	1.245	1	1.245	.583	.450
	Within Groups		81.133	38	2.135		
	Total		82.390	40			

The above table no shows that the ANOVA value for Market volatility on emotional changes amongst the short term investors. P-value is 0.047 which is higher than 0.05 at 95 per cent confidence level. It indicates that the Market volatility strongly influencing the emotional changes amongst the short term investors. *Therefore, the null hypothesis is rejected and we accept that* Market volatility leads to emotional changes

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amongst the short term investors. *F value is 201.294 which are greater than the table value of F (199.500) indicates very good fit of the model.*

Table 7: Summary of Hypothesis Testing

Hypothesis1	F	Sig	ANOVA	Result
H_2: Market volatility leads to emotional changes amongst the short term investors	201.294	.047	0.000	Accepted

7.0 Findings

With the help of research data, researcher found out the following things:

- Most of the investors has started to invest from last 2-3 years i.e. after COVID-19
- There is lack of awareness & knowledge of market volatility in investors.
- Once invested, the value portfolio is mostly checked in monthly period.
- The emotions of investors most of times have impact on decisions related to investment.
- Many investors are anxious and concerned about their investment value during market downturn.

8.0 Conclusion

This study concludes that there is lack of awareness and knowledge of market volatility in investors. The sudden downfall of market cause wave of anxiety and fear of incurring losses. This leads to irrational decision. Many of investors sells their investment during unexpected instability in market. Most of the investment decision of investors are emotion driven. Also there is lack of proper financial, investment and risk management knowledge among investors. Therefore, the risk that is associated with market volatility is not managed proper, ultimately leading to some wrong and intuitional decisions.

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