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ECONOMIC EMPOWERMENT OF WOMEN THROUGH STOCK TRADING- A STUDY ON SYSTEMATIC INVESTMENT AND SYSTEMATIC WITHDRAWAL TO MINIMIZE RISK AND MAXIMIZE RETURNS

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Abstract: The purpose of this paper is to create awareness among women about the concept of Systematic Investment and Systematic Withdrawal in order to minimize risk and maximize return while trading in stock. For this purpose, a comparative study is made to analyse the return from systematic investment and systematic withdrawal Vs. buy and hold strategy. The study is made on investment and withdrawal of fixed units at regular intervals instead of fixed amount. Four stocks from Information Technology Sector trading in BSE are taken for analysis. Assumed that systematic investment (buy) is made on every 1st day of the month and withdrawal (sell) is made on every 15th day of the month. Those buy and sell transactions for 31 months are taken and Extended Internal Rate of Return (XIRR) is calculated for them. Another XIRR is calculated for Buy and Hold for 31 months. Both XIRRs are compared. The same comparison is made for 11 months Buy and Sell transactions Vs. Buy and Hold for 11 months. The results revealed that the XIRR made from systematic investment and systematic withdrawal is more than Buy and Hold Strategy for 31 months horizon whereas it is reverse for 11 months horizon.

1. Introduction

Nowadays stock trading has become a simple task. Many apps are available to do the trading by ourselves through online. Trading can be done with a smart phone, internet, money and some basic knowledge of using apps. We can invest in foreign stock market also with ease. The comfort of trading at home, convenient hours, freedom of choice of stocks and reasonable profit attract people especially women to do trading in stock.

Every financial investment or trading involves risk. Likewise keeping money as idle also involves risk. Idle money will lose purchasing power with inflation. Hence it is inevitable to take risk to create wealth. Generally, the return will commensurate with the risk taken. But in stock trading, it is not so. Even by taking higher risk, the return on stock trading may be very less and there is a chance of losing principal itself in some cases. Continuous monitoring of price movements is necessary to minimize risk. Diversifying the investments in different sectors will help in minimizing the risk. Analysis on intrinsic value of stock, price movements and the inference from price movements are essential to minimize risk and maximize return in stock trading.

Types of Analysis on stocks

There are of two types of analysis

i. Fundamental Analysis: This is the analysis of evaluating stock based on financial performance, SWOT (Strength, Weakness, Opportunities and Threats) analysis of the company and other macroeconomic factors. It can be categorized into two.

Qualitative Analysis: This involves studying of target market, top management, adaptiveness of technology, the company's potential customers, business development capability, financial controls, demand for the product or service, statutory compliance, industrial trends, government support and satisfaction of the stake holders of the company.

Quantitative Analysis: This is the analysis of financial performance and shareholding pattern through annual and quarterly reports of the company. The analysis can be made in the form of Profit growth, Sales growth, Projected earnings, ratio analysis like Debt/Equity Ratio, CAGR (Compound Annual Growth Rate), PE (Price Earnings) Ratio, PB (Price to Book) Ratio, Dividend Yield Ratio, ROE (Return on Equity) Ratio, ROCE (Return on Capital Employed) Ratio, Liquid Ratio, Current Ratio, Inventory Turn Over Ratio, Creditor Turn Over Ratio and Debtor Turn Over Ratio.

ii. Technical Analysis: This is the analysis of price and volume movements of the stock in the past to predict the future. This is done through the below methods.

1. Plotting the data on charts and getting inference from the patterns.
2. Getting inference from statistical tools called technical indicators. Technical indicators can be broadly grouped under the below categories:

i)Trend Indicators- for E.g. Moving Averages, On-Balance Volume (OBV)

ii)Momentum Indicators-for E.g. Relative Strength Index (RSI), Moving Average Convergence and Divergence (MACD)

iii) Volatility Indicators- for E.g. Cboe Volatility Index, Average True Range, Bollinger Bands

iv) Volume Indicators- for E.g. Accumulation Distribution, Negative Volume Index, Volume Weighted Average Price

While fundamental analysis is used for long term investments, technical analysis is used for short term investments and trading. Technical analysis is based on the assumption that market price of the stock is already a reflection of fundamental analysis.

Types of Trading on stocks

There are of two types of Trading.

i. Active Trading: This is the trading of stock i.e. buying and selling regularly based on short term price & volume movements which are captured by technical indicators.

ii. Passive trading: This is buy and hold strategy and is aimed for long term investment. No action is taken based on short term price fluctuations.

Systematic Investment Plan and Systematic Withdrawal Plan are regular transactions made in regular time intervals.

Systematic Investment Plan (SIP)

This is a method of investing a fixed amount on a desired Mutual Fund on regular intervals for certain period of time. The investment amount, intervals and time horizon are decided by the investor. The number of units purchased on a particular date will vary based on the market price of the mutual fund on that particular date. SIP takes the advantage from cost averaging and market volatility.

Systematic Withdrawal Plan (SWP)

This is the method of withdrawing fixed amount from the investment in regular intervals. The withdrawal amount and intervals are decided by investors. The number of units withdrawn on a particular date will vary based on the market price of the mutual fund on that particular date. This plan creates regular income while the balance amount in corpus will tend to grow with return on investments.

Standing instructions are given for Systematic Investment Plan and Systematic Withdrawal Plan and they are common in Mutual Funds. Nowadays Systematic investment plan is being adopted in stocks also.

This study is different from a study on regular SIP or SWP. In this study, an analysis is made on the profitability out of systematic investment and systematic withdrawal of fixed number of stock at regular time intervals. This study takes into consideration of fixed units (say one unit) instead of fixed amount for the investment and withdrawal. This study assumes investment and withdrawal happens at regular interval for same number of units in spite of any favourable or adverse price movements. The study is made for a time horizon of 31 months and 11 months. Extended Internal Rate of Return (XIRR) derived out of these transactions is compared with XIRR derived from buy and hold strategy.

2. Literature Review

Renuka Venkataramani&ParthajitKayal in their study on “Systematic investment plans (SIP) vs market-timed investments”, compared the return from Systematic Investment Plan with the return from Yearly lowest point investment, Half-yearly lowest point investment and Absolute momentum investment. They did the analysis on all stocks (except 5 due to statistical constraint) listed for Nifty 50 index. The result favours SIP as an ideal strategy for long term investments.

Sahana R Choudhari& Prof. HarshalBoargaon in their study on “The Comparative study on Systematic Investment Plan and One Time Investment Plan in Mutual Fund”, analyzed return from lump sum investment Vs. SIP by calculating CAGR for lump sum investment and XIRR for SIP. They took the data for 10 mutual funds for the period of 5 year. The result showed CAGR of lump sum investment is greater than SIP.

Dimple Batra & Gunjan Batra in their study on “A DEA COMPARISON OF SYSTEMATIC AND LUMP SUM INVESTMENT IN MUTUAL FUNDS” compared the lump sum investment with SIP using DEA i.e. Data Envelopment Analysis and found SIP is more profitable than lump sum investment.

Debalina Roy and Koushik Ghosh in their study on “The Scenario of Investment in Systematic Investment Plan (SIP) among the Retail Customers” conducted a survey by issuing questionnaire and found that youngsters are preferring SIP and SIP is the ideal way to build wealth for those who is not able to invest lump sum.

3. Research methodology

For this study, four stocks in Information Technology sector being traded in BSE namely Wipro Limited, Infosys Limited, HCL Technologies Limited and Tata Consultancy Services Limited are taken for analysis. Closing price for 31 months i.e. for the period from January 2020 to July 2023 is taken from the below source

https://www.bseindia.com/markets/equity/EQReports/StockPrcHistori.html?flag=0

Assumption is made as below for active trading:

For 31 months trading

1. One stock is purchased on every month on first trading day of that month for the period from January 2020 to July 2023.
2. That stock is sold on the 15th day of the month for the period from January 2020 to July 2023. If there is no trading on 15th day, it is sold on the next trading day.

For 11 months trading

1. One stock is purchased on every month on first trading day of that month for the period from September 2022 to July 2023.
2. That stock is sold on the 15th day of the month for the period from September 2022 to July 2023. If

there is no trading on 15th day, it is sold on the next trading day.

Assumption is made as below for Buy and Holding:

<u>For both 31 months and 11 months trading</u>

1. One stock is purchased on 1st January 2020
2. That stock is sold on 17th July 2023.

The data is tabulated in Excel. Every Purchase is shown as negative number and every sale is shown as positive number.

Profit is the sum of difference between Sales and Purchases. Positive figure shows Profit and negative figure shows Loss.

The Extended Internal Rate of Return (XIRR) is calculated using the below formula in Excel

“=XIRR(values, dates)”

The results are tabulated as below.

Wipro Limited

	Profit (Rs.)	**XIRR**
SIP and SWP for 31 months	141.6	41%
Buy and hold for 31 months	167.5	16%

SIP and SWP for 11 months	-36.55	-19%
Buy and hold for 11 months	4.7	1%

Infosys Limited

	Profit (Rs.)	**XIRR**
SIP and SWP for 31 months	414.6	33%
Buy and hold for 31 months	685.9	20%
SIP and SWP for 11 months	-177.3	-26%
Buy and hold for 11 months	-41.65	-3%

HCL Technologies Limited

	Profit (Rs.)	**XIRR**
SIP and SWP for 31 months	458.95	65%

Buy and hold for 31 months	581.8	22%
SIP and SWP for 11 months	-3.6	-1%
Buy and hold for 11 months	227.65	29%

Tata Consultancy Services Limited

	Profit (Rs.)	XIRR
SIP and SWP for 31 months	1,031.35	30%
Buy and hold for 31 months	1,322.15	14%
SIP and SWP for 11 months	86.95	6%
Buy and hold for 11 months	360.4	13%

Findings

In all the above stocks, the XIRR % made out of Sip and SWP for 31 months is more than Buy and Hold for 31 months. But the absolute Profit made out of Sip and SWP for 31 months is lesser than Buy and Hold for 31 months.

In all the above stocks, the absolute profit as well as XIRR made out of Buy and hold for 11 months is more than SIP and SWP for 11 months.

4. Limitations of the Study

In this study, it is assumed that the investment and withdrawal is made on regular time interval and the money is idle for the time period between withdrawal and next investment. But the money can be invested and withdrawn in another stock during that time gap which is not considered here.

The cost incurred on buy and sell transactions are not considered in this study.

It is assumed that the investor has money and intention to invest regularly even if there is a loss in previous transaction.

5. Conclusion

The active trading based on Systematic Investment and Systematic Withdrawal of fixed units is profitable in the long run and it is more profitable than buy and holding for the selected stocks.

For the short term investments and trading, Systematic Investment and Systematic Withdrawal of fixed units yield only lesser than the yield from buy and holding strategy. So it is riskier to do Systematic Investment and Systematic Withdrawal without analyzing the price movements for the short run.

6. References

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