A STUDY ON THE IMPACT OF BRAND PERCEPTION AND CUSTOMER SERVICE ON BRAND LOYALTY

Thrupthi.K *
PG Research Scholar, Department of Management Studies
Global Academy of Technology, Bengaluru
Dr. V Chandrasekhar Rao*
Professor, Department of Management Studies
Global Academy of Technology, Bengaluru

Abstract: *This research project conducts a comparative analysis of futures and options as risk management tools in the Indian stock market, with a focus on five midcap companies: Jubilant Food works Ltd, Coforge, Biocon, IDFC First Bank Limited, and Cummins India Ltd. Selected based on market capitalization, liquidity, and volatility, these companies represent the midcap segment. Utilizing secondary data from stock market databases and research papers, the study aims to evaluate the benefits and drawbacks of using futures for risk management. It specifically examines hedging effectiveness, cost-effectiveness, and the risk-reward tradeoff. This research contributes to the literature on risk management in the Indian stock market, offering valuable insights for investors and traders seeking to manage risk exposure effectively.*

Introduction

Risk management is an essential part of any investment strategy in the stock market. In recent years, futures have become popular instruments for managing risk in the Indian stock market. The purpose of this research project is to conduct a comparative analysis of futures and options as risk management tools in the Indian stock market, with a special focus on five midcap companies. The selected midcap companies are chosen based on their market capitalization, liquidity, and volatility. The companies under study are expected to provide a good representation of the midcap segment of the Indian stock market. The five selected midcap companies are "Jubilant Food works Ltd, Coforge, Biocon, IDFC First Bank Limited, Cummins India Ltd." The project aims to provide a detailed understanding of the benefits and drawbacks of using futures as risk management tools in the Indian stock market. The study will compare the performance of futures in terms of hedging effectiveness, cost-effectiveness, and risk-reward tradeoff.. The study will be conducted using secondary data sources. Secondary data will be collected from stock market databases, research papers, and other relevant sources. The research project is expected to contribute to the existing literature on risk management in the Indian stock market. The study is also expected to provide insights for investors and traders who are looking to use futures as risk management

tools in their investment strategies. In conclusion, this research project is an attempt to provide a comprehensive analysis of the use of futures as risk management tools in the Indian stock market. The study will focus on five midcap companies and compare the performance of futures and options in terms of hedging effectiveness, cost-effectiveness, and risk-reward tradeoff. The project is expected to provide valuable insights for investors and traders who are looking to manage their risk exposure in the Indian stock market.

Literature Review

1. (Dr. S. Durga1, 2020) In their paper "A paper on a review on stock futures and stock options with reference to NSE and BSE" discusses that with the advent of derivatives many products emerged satisfying the needs of investors. In India, stock futures and stock options are helping the investors in many ways. NSE & BSE differ each other in terms of volume traded.

2. (Jyothi, 2020) in the paper "A Study on risk management methods and practices of traders in Indian commodity derivative markets" The current study suggests a methodology to assess the risk tolerance level of the exchange. If investing in commodities or derivatives is permitted based on one's degree of risk tolerance, one should do so utilising the risk-mitigation techniques recommended by the study.

3. (B. Radhakrishna, 2019) in the paper "The Impact of Maturity on Futures and Options with Reference to National Stock Exchange: An Exploratory Study" This study makes an effort to draw conclusions about the influence of maturity effect on derivatives market in National Stock Exchange based on literature review. Second, it tries to highlight the impact of weekly and monthly futures and options contracts.

4. (Paresh, 2019) in the paper "Stock and index futures in derivatives market an empirical analysis in Indian context" The study's objectives included determining the correlation between future close price, trading volume, and open interest as well as testing the cause-and-effect relationship between spot and futures trading, as well as determining the ideal hedge ratio and hedging efficiency for Index and Stock futures in India.

5. (D, 2019) in the paper "Risk Exposure and Derivative Market A study of Retail Investors" The study sought to establish that According to the findings, investors are confidently exposed to high levels of risk in order to profit from their investments. The study discovered that their propensity and behaviour were largely influenced by their economic level.

6. _(Kumar, 2019)_in the paper "An Empirical Study of Efficiency Volatility Spill over and Violations in Spot Futures and Options Market of India". The Augmented Dickey Fuller test, the Auto-correlation test, and the Variance ratio test were the parametric tests that were used. Run test was the chosen non-parametric test. The nifty index was chosen to explore how futures and options affect the volatility of the spot market. The nifty index's return is influenced by a variety of macroeconomic variables. The impact of other factors must be separated in order to investigate the effect of derivatives.

7. (Puthiyilleth, 2019)_in the paper "The role of futures market in price discovery and price risk management in India an analysis of selected agricultural commodities" focuses on how to conduct an analysis of price volatility and price behaviour of spot and futures markets to draw conclusions about the volatility spill-over effects of pepper and rubber futures markets. The statistical methods employed in this study include the GARCH (1,1), BEKK, VECH, ARMA, and ARCH models.

8. (Dhanyamol, 2019) In the paper "Risk Management Practices of Financial Derivatives with Special Reference to Futures and Options in Kerala" This paper focuses on how to investigate investors' perceptions of derivatives' ability to mitigate risk. How to quantify the success of different futures and options trading techniques for risk management.

9. (T, 2018) in the paper "Role of Futures in Risk Reduction a study with reference to select Banks Futures" The study's focus was reduced to evaluating the best hedge ratios and hedging performance of 8 banks chosen from 24 bank futures in the NSE's banking sector. Additionally, it examines how banking futures' price discovery function works. Both primary and secondary data are incorporated into this study.

10. (Ramasamy, 2017)in the paper "Impact of Risk-Return Analysis on Stock Futures and Options Trading in Indian Equity Derivatives Market with Special Reference To NSE." The study's primary goal is to assess the futures and options in equity derivatives of particular Infosys and TCS software firms. to determine the connection between risk and return in option and future contracts. should be thoroughly knowledgeable about the Indian futures and option markets.

Research Methodology

Research Design

The paper adopts a comparative research design as its methodology. A comparative study design compares several variables or groups to ascertain their relationships. The study seeks to analyse the effect of futures on risk management practises by contrasting the performance of these firms' stock prices before and after the adoption of futures methods.

Source of Data

Secondary data for this paper may be gathered from a variety of sources, including the NSE website and the financial statements of the chosen midcap businesses. The information sources used are secondary data. Data that has been gathered by someone else for a different reason but may be used by researchers for their own study goals is referred to as secondary data.

Population

The population of this research consists of midcap enterprises registered on the Indian stock market. Five distinct midcap companies—Jubilant Food works Ltd., Biocon, Cumminsind, Coforge, and IDFC First Bank—are the subject of this research.

Model Framework

In this the independent variable is the spot price, and the dependent variable is the future contract price. The paper aims to examine the effects of potential hedging tactics on five midcap businesses listed on the Indian stock market.

The model framework for the paper involves assessing the risk and return characteristics of the selected midcap companies and evaluating the viability of using futures as hedging instruments.

Formulas used : Linear Regression equation

Regression Equation:

The regression equation is used to estimate the relationship between two variables, in this case, the spot price (S) and the future contract price (F). The equation calculates the values of beta (β) and alpha (α) in the linear regression model.

$\beta = (n\Sigma\Delta s\Delta f - \Sigma\Delta s\Sigma\Delta f) / (n\Sigma\Delta f^2 - \Sigma\Delta f^2)$

Here,

β represents the beta coefficient, which measures the sensitivity of the future contract price to changes in the spot price.

n is the number of observations or data points.

ΣΔsΔf represents the sum of the products of the differences between the spot price and its mean ($\overline{\Delta S}$) and the differences between the future contract price and its mean ($\overline{\Delta F}$).

ΣΔs and ΣΔf represent the sum of the differences between the spot price and its mean and the sum of the differences between the future contract price and its mean, respectively.

ΣΔf^2 represents the sum of the squared differences between the future contract price and its mean.

Alpha (α):

Alpha is a term in the regression equation and represents the intercept or constant term. It indicates the expected excess return when the spot price is zero.

$$\alpha = \overline{\Delta S} + \beta\,\overline{\Delta F}$$

Here, α represents the alpha coefficient, which measures the excess return of an investment after adjusting for the market's movements.

$\overline{\Delta S}$ represents the mean difference of the spot price.

$\overline{\Delta F}$ represents the mean difference of the future contract price.

β represents the beta coefficient obtained from the regression equation.

Hypothesis

Ho: There is significant impact of future strategies as hedging tools

H1: There is no significant impact of future strategies as hedging tools

Limitations

a. Time constraint

b. The output is limited to only selected 5 midcap companies

Data Analysis and Interpretation

Calculation To Assess The Effectiveness Of Futures Contracts Controlling Risk Under Various Market Circumstances, Such As Bullish Or Bearish Trends.

Jubilant Food works Ltd

Table 5.2.1: Hedging Analysis: Assessing Futures Contracts' Risk Control in Bullish and Bearish Markets of Jubilant Food works LTD

Particulars	Volume	Price	Investment
Futures	1250	2,570.50	3213125
Equity	1259	2,551.35	3212149.65
At the end of contract			1745540.55
Loss			1466609.1
Pay off using futures			1733062.5
profit/loss using futures as hedging tools			1480062.5
profit/loss using futures			13453.4

Source : https://www.nseindia.com/get-quotes/derivatives?symbol=JUBLFOOD

Interpretation And Analysis

The information provided demonstrates the effectiveness of futures contracts as a risk management tool in mitigating risk and generating income for the business "JUBLUINFOODWORKS" in the Indian stock market. The data indicates that the futures category had a volume of 1250, a price of 2,570.50, and a total investment of 3,213,125. The equity category had a slightly higher volume, price, and total investment. The value at the end of the contract was 1,745,540.55, resulting in a loss of 1,466,609 during the contract period. However, the futures payoff was calculated to be 1,733,062.5, indicating a profit of 1,480,062.5 from utilizing futures as hedging instruments. The overall profit/loss from using futures contracts was reported as 13,453.4. These findings suggest that futures contracts effectively reduced risk and generated income for "JUBLUINFOODWORKS" in the specific market conditions.

BIOCON

Table 5.2.2 : Hedging Analysis: Assessing Futures Contracts' Risk Control in Bullish and Bearish Markets of Biocon

Particulars	Volume	Price	Investment
Futures	2300	672.05	1545715
Equity	2315	667.6	1545715
At the end of contract			1434463.34
Loss			111251.656
Pay off using futures			1424965
profit/loss using futures as hedging tools			120750
profit/loss using futures			9498.34369

Source : https://www.nseindia.com/get-quotes/derivatives?symbol=BIOCON

Interpretation and Analysis

The provided data evaluates the efficiency of futures contracts in mitigating risk for BIOCON, a specific business. The data is divided into two sections: Futures and Equity. In the Futures section, 2300 contracts were sold at a price of 672.05 per contract, resulting in a total investment of 1,545,715. Under Equity, 2315 shares were exchanged at a volume price of 667.6 per share, with the same total investment amount. After the contract duration, the investment value is reported as 1,434,463.34, indicating a loss of 111,251.656 from the initial investment. This loss could be influenced by market dynamics, such as a negative market state. The "Pay off using futures" is stated as 1,424,965, showing that the loss

incurred by using futures contracts as a hedging mechanism is lower than the loss from the initial investment. The "profit/loss using futures as hedging tools" is reported as 120,750, indicating a profit..

Lastly, the "profit/loss using futures" is specified as $9,498.34369. This figure represents the net profit or loss derived solely from the futures contracts, without considering equity holdings. It can be compared to other indicators to gain a better understanding of the performance of futures contracts on their own. By analysing comparable data for other firms among the chosen five midcap businesses, the effectiveness of futures contracts as a risk management tool in the Indian stock market can be further assessed.

CUMMINSIND

Table 5.2.3 : Hedging Analysis: Assessing Futures Contracts' Risk Control in Bullish and Bearish Markets of Cumminsind.

Particulars	Volume	Price	Investment
Futures	600	735	441000
Equity	573	769.5	441000
At the end of contract			371167.8363
Loss			69832.16374
Pay off using futures			388590
profit/loss using futures as hedging tools			52410
profit/loss using futures			-17422.16374

Source : https://www.nseindia.com/get-quotes/derivatives?symbol=CUMMINSIND

Interpretation and Analysis

This research focuses on the use of futures contracts as a risk management tool in the Indian stock market, specifically examining the case of a corporation called CUMMINSIND. The data reveals that the futures contract for CUMMINSIND resulted in a loss of 69,832.1637, while an equity investment made simultaneously incurred a loss of 17,422.1637. However, when using futures for payment, a profit of 52,410 was obtained, suggesting that futures can help limit losses and generate a profit in this specific situation.

To gain a comprehensive understanding of the effectiveness of futures contracts in managing risk, it is crucial to gather similar data for four more midcap businesses and compare the outcomes. By assessing the efficiency of futures contracts in various market conditions, such as bullish or bearish tendencies, we can evaluate their consistency as a risk management tool. This comparative analysis across multiple organizations will provide valuable insights into the role of futures contracts in managing risk for midcap companies in the Indian stock

market

COFORGE

Table 5.2.4 : Hedging Analysis: Assessing Futures Contracts' Risk Control in Bullish and Bearish Markets of Coforge

Particulars	Volume	Price	Investment
Futures	150	1154.9	173235
Equity	149	1,162.10	173235
At the end of contract			163664.6644
Loss			9570.34
Pay off using futures			164685
profit/loss using futures as hedging tools			8550
profit/loss using futures			-1020.34

Source : https://www.nseindia.com/get-quotes/derivatives?symbol=COFORGE

Interpretation and Analysis

The data provided shows that COFORGE utilized futures contracts as a hedging mechanism to manage risk under various market conditions. COFORGE had 150 futures contracts outstanding, with an assumed investment of ₹173,235. At the conclusion of the contract period, the investment was worth ₹163,664.6644, resulting in a loss of ₹9,570.34. However, compared to not using any hedging instrument, the utilization of futures contracts resulted in a profit of ₹8,550.

The investment exposure for both instruments was identical, indicating that they started with the same level of risk exposure to COFORGE. The futures pay-out at the end of the contract was ₹164,685, demonstrating a favourable outcome and minimizing potential losses. Without considering hedging, the analysis reveals a loss of ₹1,020.34 from futures contracts alone. This suggests that the loss would have been greater if the futures contracts had not been used for hedging. Based on the provided statistics, it appears that COFORGE effectively managed risk using futures contracts under the current market conditions. However, it's important to emphasize that this research only applies to COFORGE and cannot be generalized to all situations and businesses in the Indian stock market. Further research and data from other midcap corporations would be necessary to draw broader conclusions about the effectiveness of futures contracts as a risk management tool.

In conclusion, the data suggests that COFORGE benefited from using futures contracts as a hedging strategy, reducing overall losses and generating a profit.

IDFC FIRST BANK LIMITED

Table 5.2.5: Hedging Analysis: Assessing Futures Contracts' Risk Control in Bullish and Bearish Markets of IDFC First Bank Limited.

Particulars	Volume	Price	Investment
Futures	15000	48.9	733500
Equity	15171	48.35	733500
At the end of contract			589379.0072
Loss			144121
Pay off using futures			582750
profit/loss using futures as hedging tools			150750
profit/loss using futures			6629

Source : https://www.nseindia.com/get-quotes/derivatives?symbol=IDFCFIRSTB

Interpretation and Analysis

The provided data compares the performance of futures contracts in managing risk in the Indian stock market, with a specific focus on IDFC FIRST BANK LIMITED. The futures contract had a value of 733,500, a volume of 15,000, and traded at a price of 48.9. On the other hand, the equity investment had a similar value of 733,500, a slightly higher volume of 15,171, but a lower price of 48.35.

At the end of the deal, the investment's total stated value was 589,379.0072, resulting in a loss of 144,121. This decline in value can be attributed to various market variables. However, it is noteworthy that the futures contract generated a payout of 582,750, indicating an overall gain of 150,750 when used as a hedging instrument. Additionally, it is stated that 6,629 was made or lost specifically through the use of futures contracts.

In summary, this data highlights the comparative effectiveness of futures contracts in managing risk in the Indian stock market, specifically concerning IDFC FIRST BANK LIMITED. Despite the overall loss incurred by the investment, futures contracts proved to be a profitable risk management strategy, generating substantial gains when utilized appropriately.

References

- Anjali, M. (2016). A Study of Derivative Trading Strategies in Indian Stock Market. Retrieved from http://hdl.handle.net/10603/146490

- Anurag, A. (2010). Managing risk through futures and options a case study of NSE. *Shodhganga*. Retrieved from http://hdl.handle.net/10603/314404

- Arjun, G. (2015). A comparative study of select accounting standards for financial derivative instruments. (G. Mitra, Ed.) Retrieved from http://hdl.handle.net/10603/202107

- B. Radhakrishna, S. R. (2019). The Impact of Maturity on Futures and Options with Reference to National Stock Exchange: An Exploratory Study. *Theoretical Economics Letters, 9.*

- Basu, M. (2016). Weather riWeather Risk management through weather derivatives a study with special reference to Indian power sector. (Shodhganga, Ed.) Retrieved from http://hdl.handle.net/10603/184516

- Chakraborty, P. (2011). Role of futures trading in stabilizing volatility and achieving efficiency of the underlying stock market in India a study with reference to National Stock Exchange. *INFLIBNET Centre*. Retrieved from http://hdl.handle.net/10603/66838

- D, M. (2019). Risk Exposure and Derivative Market A study of Retail Investors. Retrieved from http://hdl.handle.net/10603/262628

- Dhanyamol, C. K. (2019). Risk Management Practices of Financial Derivatives with Special Reference to Futures and Options in Kerala. (Shodhganga, Ed.) Retrieved from http://hdl.handle.net/10603/474819

- Dr. S. Durga1, D. V. (2020). *A PAPER ON A REVIEW ON STOCK FUTURES AND STOCK OPTIONS WITH REFERENCE TO NSE AND BSE* (Vol. 7). Andhra Pradesh, India: European Journal of Molecular & Clinical Medicine.

- Jyothi, D. S. (2020). A Study on risk management methods and practices of traders in Indian commodity derivative markets. Retrieved from http://hdl.handle.net/10603/319258

- K, B. M. (2013). Commodity futures as a hedging tool a study with special reference to selected crops in Kerala. Retrieved from http://hdl.handle.net/10603/213823