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Moderating Effect of Performance Evaluation Behavior Linking Perceived Risk Return Analysis of Selected Large Cap and Flexi Cap Mutual Funds in India

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Abstract

Aim -The study aims to understand the impact of risk and return on the performance evaluation of Large Cap and Flexi-Cap Mutual Funds in India. This study further evaluates the moderating role of fund rating about performance evaluation behavior of Large Cap and Flexi-Cap Mutual Fund schemes in India.

Methods-The portfolio evaluation of Large Cap and Flexi-Cap Mutual Fund schemes in India using volatility measures such as quantitative factors like Total Risk (Standard Deviation), Beta, systematic risk and unsystematic risk the ratios such as Sharpe and Jensen's Alpha. Data for research are collected from the secondary data sources and selected from 25 Large Cap Mutual Fund schemes and 30 Flexi-Cap Mutual Fund schemes in India. The collected data were examined using a Partial Least Squares (PLS) Structural Equation Modeling (SEM) modeling approach was employed for fulfilling the objective of study.

Results/Findings – According to the data, the reliability indicator displays values for all indicators with loading factors more than 0.70 and Average Variance Extracted (AVE) values greater than 0.50. The composite dependability has a Cronbach alpha score of 0.70 or above for internal consistency reliability. Exogenous variables such as risk and return can be utilized to predict the endogenous variable of risk adjusted return (85%), with the remaining 20% influenced by factors outside the scope of this study. The predictive modeling power of the endogenous risk adjusted return variable is high (0.855). Exogenous variables such as risk and return can be utilized to predict the endogenous variable of risk adjusted return (85%), with the remaining 20% influenced by factors outside the scope of this study. Risk behaviour has been shown to operate as a moderator of the link between risk and return components and risk adjusted returns. According to the criteria (0.02 = weak/low, 0.15 = moderate, and 0.35 = strong/high), external latent factors have a significant impact on endogenous variables.

Conclusion -The moderating role of Performance Evaluation Behavior (PEB) for decision making regarding Risk adjusted returns provides important insights for the investing sector. Therefore, it can be said that the Performance Evaluation Behavior (PEB) moderation is higher in the Risk than Return when analyzing the relationship with Risk adjusted returns.

Keywords: Structural Equation Modelling, Partial Least Square, Mutual fund performance, Retail investors, perceived risks, Perceived Return, Mutual Fund Ratings, Internal Consistency Reliability.

1. Introduction

In their study, **Naveen and Mallikarjunappa[1]**used statistical measures like standard deviation, beta, Sharpe ratio, Treynor's index, and Jensen's measure for risk-return analysis to evaluate the performance of large, mid, small, and multi-cap categories from equity diversified funds. The correlation study of the time series was looked at using the Nifty 100 TRI as the benchmark. The pandemic effect was studied using a multiple regression model, and the results were confirmed using residual diagnostics. 93 open-ended ideas were selected from the four categories and studied for 4 years, from April 2017 to March 2021, ending with the COVID-19 pandemic in December 2019. The study looked at how the pandemic affected performance before and after it using a dummy variable. According to the data, large, mid, and multi-cap funds fared roughly averagely, but small-cap funds outperformed the benchmark. The pandemic effect dummy coefficient was beneficial and statistically significant for the fund categories considered in the analysis. The robustness examination determined that the model was the best fit, and the pandemic effect did not reveal an averagely poor performance across the period. The market and the various fund kinds did, however, generally have a close relationship.

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Nur and Fernandika [2],looking at the performance of fixed income mutual funds from 2016 to 2019, examined the impact of fund age, fund size, expenditure ratio, and prior performance. Performance of fixed income mutual funds is assessed using the Sharpe method. The study's data were examined using multiple regression. The study's conclusions show that mutual funds that invest in fixed income are significantly and adversely impacted by fund age. On the other hand, fund size, expenditure ratio, or historical performance have little effect on the performance of fixed-income mutual funds. By carefully choosing mutual fund products, particularly fixed income mutual funds, investors can profit from the findings of this research.Portfolio managers can use this study to assess the performance of the mutual funds they are in charge of. in order to improve the future performance of the mutual funds they supervise. People can better understand the facets of investing in fixed income mutual funds thanks to the study.

Based on the daily net asset value (NAV) of a few selected Indian mutual fund schemes during a ten-year period from 2012 to 2021,**Kusuma and Kumar[3]** evaluated their performance. The study will use a sample of ten open-ended equity funds that focus on growth. Regression and correlation analysis were used to establish how well the macroeconomic components of the funds performed, and the results will help investors make more informed investing decisions. The study's conclusions show that the determination coefficient shows that GDP, interest rates, inflation, and net asset value of equity mutual funds all have an impact on fund performance of 0.8 percent. Using a sample of 27 equities ETFs traded on the National Stock Exchange of India from January 2015 to December 2019,**Alamelu and Goyal[4],**evaluated the capacity of Indian equity ETFs to replicate the performance of their benchmark indexes.An investigation of the performance of the sample ETFs utilizing risk-return analysis, risk-adjusted performance measures, tracking error analysis, and multi-factor regression showed that the majority of the sample ETFs outperformed their tracking indices over the study period, albeit with large tracking errors. Additionally, the analysis demonstrates thatrisk and management expenses have a weak and unfavorable relationship with the returns of the sample ETFs but a strong and favorable relationship with the returns of the index. The results of this study will have substantial implications for investors when evaluating the performance of ETFs and fund managers, developing strategies to make ETFs more cost-effective, and putting into practice the right tracking error reduction strategies that will aid in successful replication of the benchmark.

Cremers, Fulkerson, and Riley [5]introduced a novel holdings-based method for identifying benchmark discrepancies in mutual funds. A benchmark variation indicates that a fund may be riskier than its prospectus benchmarks suggest. As a result, even when they underperform benchmarks that accurately reflect their holdings, the funds generally surpass their prospectus benchmarks. **Suvarna, A. [6]**used conditional techniques to assess 52 sample Indian equity-diversified mutual fund (growth) schemes' aptitude for selecting and distributing money to individual stocks as well as their capacity for market timing. In terms of stock selectivity and market timing, less than one-third of the funds that were examined lacked positive and significant coefficients. It's intriguing, but not surprising, that the investigation did not uncover any particularly poor stock choices. In contrast, there was a tone of evidence supporting "perverse" or "wrong" macro-forecasting or market timing. It is impossible for Indian equities diversified scheme fund managers to simultaneously demonstrate skill in each of these areas due to the negative correlation between the stock choosing and market timing coefficients.

The COVID 19 virus outbreak, which will persist from December 2019 through May 2020, will have an influence on the Indian mutual fund business, according to **Shanmugam, V. P., & Ali, K. A. [7].)**. A representative sample of 25 equity-focused direct growth funds was utilised in this study to examine the performance of the funds overall and how it varied by industry. The results show that most of the funds' values declined within the designated time period, but some of the funds' values rose. In their study, **Singh, S. [8]**used sample data from 144 Indian open-ended equities and balanced regular mutual funds, comprising of eight different fund categories, from April 2014 to March 2018 to assess the link between fund flow and fund performance. Through the use of Sirri and Tufano'sfractional flow model, piecewise regression, and Fama-MacBeth's regression, researchers found a substantial positive correlation between fund flow and fund recent past performance. Indicating the relative sophistication of the Indian mutual fund business, the results showed that ordinary investors were sensitive to the fund's recent past performance. The findings revealed that retail investors favored investing in less risky funds, which was backed by the negative and significant coefficients of all panels. The survey also revealed information about investment behavior in terms of fund flow and its connections to risk, fee ratio, fund category flow, fund age, asset management firm age, and fund manager experience. This ground-breaking work estimated the regular plan fund flow-performance relationship after the Securities and Exchange Board of India introduced regulatory reforms, such as the introduction of direct plans and the additional commission allowed to distributors outside the top 15 cities.

The impacts of risk tolerance as a mediating factor on the relationship between financial literacy and investment

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performance were examined by **Kanagasabai and Aggarwal [9]**. Information was gathered from 203 individual investors in Chennai, India, using a standard questionnaire. The findings demonstrate a significant positive relationship between financial literacy and investment performance, with risk tolerance acting as a small mediating element. The mediating role of risk tolerance is being examined for the first time in a study of this kind. It demonstrated that as financial literacy rises, investors' risk tolerance increases, resulting in higher and more satisfying investment performance. This study has repercussions for politicians, financial advisors, and investors alike. It also encourages non-investors to start investing by increasing their awareness of the importance of financial literacy for investors. The effectiveness of Indian multi-cap mutual fund schemes was examined by **Bachal and Kale [10]** using a variety of risk measurement approaches (Alpha, Beta, Standard Deviation, etc.). The results of this study show that multicap mutual fund schemes had acceptable risk-adjusted returns between 2013 and 2018. The CAPM model has been shown by **Berk, J. B., & Van Binsbergen, J. H [11]** to be the best model for assessing the performance of mutual funds. The market portfolio based on Sharpe's single index model better explains investor decisions than multifactor models, hence the researcher urges fund managers to utilize this model to create optimal portfolios.

Equity-oriented mutual funds should account for a large component of your portfolio if you want to increase your wealth. Mutual funds that focus on equities come in a variety of subcategories. The equity category has two significant subcategories of this type: large-cap funds and flexi-cap funds. A large cap fund is not the same as a large cap stock; flexi cap invests 70–75 percent of its assets in large cap equities but is not referred to as a large cap fund. Therefore, the majority of flexi caps are heavily weighted towards large cap stocks because the fund manager in a flexi cap fund has the freedom to invest a sizable portion in big blue chip companies while still having the option of deviating from the benchmark to provide that boost, which is what you get for the fee to the fund manager. Compared to the large cap group, the experts are a little more daring with flexi caps.Finding mutual fund schemes that can produce larger returns than other schemes while taking a proportionately lower degree of risk than others is always beneficial for investors. Unfortunately, it can be difficult for investors to uncover such schemes because doing so takes a lot of portfolio research and math work. However, it is now incredibly simple to look beyond a mutual fund's returns and evaluate a fund holistically on the basis of qualitative data rather than quantitative data, which is based on risk-return analysis and investment performance evaluation under portfolio analysis.

Retail investors have already begun relying on fund ratings provided by different credit rating firms and investment research, including Morningstar, Value Research, ET Money and ICRA Additionally, fund companies regularly include these "stars" in their marketing campaigns to highlight their highly regarded funds. A single measure of risk-adjusted performance is produced by combining the ratings from various time periods—the most recent 3 years, 5 years, or 10 years. Following the computation of the ratings, stars are given based on the percentile in which the mutual fund is positioned. For instance, the top 10% of funds are given a rating of 5, while the least fortunate 10% are assigned a rating of 1.So what do these ratings reveal? Essentially, this mechanism only serves to provide a snapshot of how the fund has performed relative to other funds in its category. Hence, it is again a backward-looking assessment mechanism, which does not reflect the rating agency's opinion of the future potential of a fund.

Due to the lack of financial knowledge among the majority of mutual fund retail investors in India, fund ratings issued by various credit rating agencies, investment research fintech, and wealth management platforms in India play a significant part in investing decision of mutual fund schemes. The goal of this study is to better understand how risk and return affect how large-cap and flexible-cap mutual funds perform in India. The moderating effect of fund rating on the performance evaluation behavior of Large Cap and Flexi-Cap Mutual Fund schemes in India is also evaluated in this study. By evaluating the risk-return spectrum of each mutual fund scheme, ET Money's fund ratings give investors a comprehensive understanding of each one's investing suitability. ET Money is an Indian fintech and wealth management platform. It does this by examining four key variables: return consistency, the capacity to generate additional returns for each additional unit of risk, the capacity to contain losses during market corrections, and the capacity to protect returns from excessive swings. In a sense, the consistency of a scheme's returns and its capacity to generate additional returns for each unit of added risk serve as indicators of the caliber of a fund's performance. The final two characteristics—a scheme's ability to cap losses and its capacity to keep returns immune from excessive fluctuations—show how the scheme manages its risk by safeguarding its downside. These two metrics fall under the category of Performance Quality. Therefore, these two items will be listed under "Downside Protection" in the fund rating of ET Money. Two measures of performance evaluation behavior used as mediating variables in this study are Performance Quality and Downside Protection.

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2. Methods

Research Objectives - The major objectives of the study are as follows:
1. To evaluate the performance of Large Cap and Flexi-Cap of the select mutual fund schemes.
2.To examine the impact of risk and return on the performance evaluation of Large Cap and Flexi-Cap Mutual Funds in India with the moderating role of fund rating about performance evaluation behaviour.

Research Hypothesis:
In order to find out whether there are any significant differences in performances of the Large Cap and Flexi-Cap or not, the following four hypotheses have been framed.
H1: There is a positive relationship between Risk and Risk adjusted Returns
H2: There is a positive Relationship between Return and Risk adjusted Returns
H3: Performance Evaluation Behaviour perfectly moderates the risk and Risk adjusted Returns.
H4: Performance Evaluation Behaviour perfectly moderates the return and Risk adjusted Returns.

Sampling Technique:
in case of selecting sample for research purpose, here random sampling technique follow which means mutual funds schemes select on random basis considering one criterion such that schemes should treaded before April 01, 2019.The performance of Large Cap & Flexi Cap on the basis of daily returns is compared to benchmark returns (S&P BSE 100 TRI & S&P BSE 500 TRI over the period of 3 years. Return of 10-year government bonds has been taken as risk free returns. There are total 30 large cap mutual fund schemes and 25 flexi cap mutual fund schemes in Indian mutual fund industry.

Time Horizon: The studies consider those mutual funds which are traded about last 60 months in the market. Research period started from 1st April, 2020 to 31st March, 2023.

Sources of Data: Quantitative data related to daily NAV (Net Asset Value) oflarge cap & flexi-cap mutual fund schemes and benchmark returns for large cap & flexi-cap mutual has been taken from the secondary sources including websitewww.amfi.com and www. bse.com. This data will be used for performance evaluation of selected large cap & flexi-cap mutual fund schemes. Fund rating provided by ET Money is taken as qualitative data from www.etmoney.com which tells about performance evaluation behaviour of mutualfund schemes and this data is used as moderatingfactor along with performance evaluation of Large Cap and Flexi-Cap Mutual Fund schemes during investment decision of retail investors in India. The fund rating data of ET Money is based on five Likert scale (1. Excellent, 2. Very Good, 3. Good, 4. Poor, 5. Very Poor).

Procedure of Data Analysis:
The risk-return performance of selected large cap and flexi cap mutual fund schemes has been done by using followingmeasures:

1) **Sharpe ratio:**It demonstrates how well a portfolio fared in terms of risk-adjusted return.This ratio compensates performance for an investor's excess risk. However, the investor can use the Sharpe Ratio to determine whether the investment meets his needs.
   Sharpe Ratio= (Rp-Rf)/ σ
   Where,
   Rp=The expected return on investor's portfolio.
   Rf=The risk free rate of return.
   σ = The portfolio standard deviation as a measure of risk.

It is used to compare mutual funds. Assume Mutual Fund X generates a 10% return with a Sharpe Ratio of 1.25 and Mutual Fund Y generates a 10% return with a Sharpe Ratio of 1.00. X's fund is preferable since it carries less risk while producing the same return. Sharpe Ratios are higher in better funds. However, if you don't know anything else, determining whether a Sharpe Ratio is good or bad is impossible.

2) **Sortino Ratio -**In the world of investing, return and risk are inextricably linked. Greater risks must be taken in order to generate greater profits, but this also carries the potential of producing lesser returns, which must be understood. In other words, increasing risk increases the possibility of a negative outcome. It is critical to select an investment with a low risk of loss. The Sortino Ratio is an upgraded version of the Sharpe Ratio. The Sortino

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Ratio only takes into account the associated bad risk (return earned per unit of bad risk). A higher Sortino Ratio is preferable. The Sortino Ratio is perfect. Sortino Ratio is useful when analyzing more volatile mutual funds.
Sortino Ratio= (Rp-Rf)/ σ (-ear)
Where,
Rp= The expected return on investor's portfolio.
Rf= The risk free rate of return.
σ (-ear) = The standard deviation of negative earnings.

3) JensenAlpha Ratio (α) - ALPHA of a Mutual Fund simply means the excess return of the fund as compared to its benchmark index.
$\alpha = Rp - Rf + b(Rm-Rf)$
or
Rp- Ke (Expected Return)
Ke = Rf + b(Rm-Rf)
Where,
Rp=The expected return on investor's portfolio.
Rm - The market return (benchmark index return).
Rf= The risk free rate of return.
σ = The portfolio standard deviation as a measure of risk
β = The portfolio BETA as a measure of risk.
If a positive fund has an ALPHA that is 15% positive. A positive ALPHA of 10% indicates that the fund underperformed by 10%, while a negative ALPHA of 15% simply means that the fund exceeded its benchmark by 15% over the specified time period. The ALPHA metric used in mutual funds measures the effectiveness of the fund manager.

4). BETA (β)– BETA (**β**) measures the mutual fund scheme's sensitivity to market movement. BETA (**β)** is thus a comparison of the volatility of a security or a portfolio to a benchmark. The beta of a fund describes how it might perform in contrast to a comparable index. To correlate this index, Fund A of Large Cap funds, for example, invests in S&P BSE 200 index stocks and similar funds. In this case, a BETA value of 1.1 suggests that fund A will move 11% higher if the S&P BSE 200 index rises and 11% lower if the same index falls. Beta is calculated as,

BETA (β) = Covariance (Rx, Rm)/ Variance (Rm).

5. Total Risk (σ^2), Systematic risk and Unsystematic risk- Standard Deviation**(σ)** is a statistical measure of the total risk. It depicts historical volatility. It is important to note that Standard Deviation just indicates the dispersion of a mutual fund's annual return and does not guarantee future consistency with this statistic.

Total Risk (σp) $^2 = \sqrt{\Sigma(Rx-\bar{Rx})^2/ N}$

Total Risk = Systematic Risk + Unsystematic Risk.

Systematic risk is the risk inherent to the entire Market or market segment. Systematic risk is also known as undiversifiable risk, Volatility, or market risk affects the overall market. The risk presented by macroeconomic factors inside an economy that are not under the control of investors or enterprises is referred to as systematic risk. This risk causes the returns on risky investments to vary. This kind of risk is unpredictable and impossible to completely eradicate. Diversification will not help reduce it; only hedging or using the right asset allocation strategy can.

Systematic Risk = βp (BETA of Portfolio) ×σ (Standard Deviation) of Market Index.

Unsystematic risk is specific to a given company or sector. The terms particular risk, non-systematic risk, residual risk, and diversifiable risk are also used to describe it. Unsystematic risk is brought on by internal forces; it is preventable and manageable. Diversification in the sense of an investment portfolio can reduce unsystematic risk.

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Unsystematic Variance=Total risk- Systematic Risk

Using partial least squares structural equation modeling (PLS-SEM), we further examine if performance evaluation behavior moderates the relationship between risk-return and risk adjudicated rerun of specific big cap and flexi cap mutual fund schemes in India. **Performance Quality**, and **Downside Protection** are utilized to quantify the performance evaluation behavior of selected Large Cap and Flexi-Cap Mutual Fund Schemes. The performance evaluation behavior is based on fund rating of ET Money (an Indian fintech and wealth management platform) in this study .

Statistical Model Description

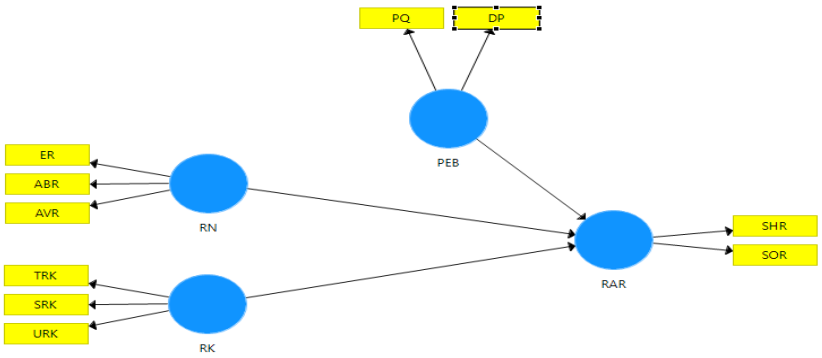

Figure:1 Empirical Model

Statistical analysis and PLS SEM:

Identification of Variables

Nature of Variable	Name of Variables	Indicators
Independent Variables	1. Risk	• Total Risk (TRK)
		• Systematic Risk (SRK)
		• Unsystematic Risk (URK)
	2. Return	• Excess Return (α) (ALPHA)
		• Absolute Return (ABR)
		• Average Return (AVR)
Moderating Variable	1. Performance Evaluation Behavior (PEB)is based on the fund rating issued by ET Money .	• Performance Quality (PQ)
		• Downside Protection (DP)
• Independent Variable	• 1.Risk Adjusted Return (RAR)	• Sharpe Ratio (SHR)
		• Sortino Ratio (SRO)

In the study of **Hair, J. F., Hult, G. T. M., Ringle, C. M., &Sarstedt, M [12]**, the research framework was assessed using a partial least squares (PLS) approach. Software for the analysis was provided by SmartPLS**.** PLS is favored over covariance-based methods because it has fewer restrictions on sample size and dispersion. PLS is referred to as a SEM

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strategy that simultaneously assesses the theoretical structural model and the measurement model by **Chin, W. W., Marcolin, B. L., &Newsted, P. R. [13]**. The opportunity to employ indicators to quantify unmeasured variables is provided by the structural equation model. This subject is vital for the dynamic capabilities because some variables call for the specification of indicators. The measuring model describes the components and their signs. The indicators measure and define the variables if the elements are not quantifiable. This situation frequently arises in studies of sociology and human resources. The variables are incorporated using a theoretical framework. The quantitative indicators provide information on intangible aspects. The structural model explains how the independent and dependent variables are related. The structural model provides an opportunity to verify the hypothesis and shed light on the causal chain, **Urban, D., &Mayerl, J.[14]**.

3.Results

Fund Ratings issued by ET Money of selected large cap and flexi cap mutual fund schemes.

Table 1.

Large Cap			Flexi Cap		
Name of Mutual Fund Schemes	**Performance Quality**	**Downside Protection**	**Name of Mutual Fund Schemes**	**Performance Quality**	**Downside Protection**
Mahindra Manulife Large Cap Pragati Yojana	Very Good	Good	Aditya Birla Sun Life Flexi Cap Fund	Good	Poor
Mirae Asset Large Cap Fund	Good	Good	Parag Parikh Flexi Cap Fund	Excellent	Excellent
Axis Bluechip Fund	Poor	Good	DSP Flexi Cap Fund	Good	Poor
ITI Large Cap Fund	Good	Poor	HDFC Flexi Cap Fund	Very Good	Very Good
SBI Bluechip Fund	Very Good	Very Good	Canara Robeco Flexi Cap Fund	Very Good	Very Good
Baroda BNP Paribas Large Cap Fund	Very Good	Excellent	Franklin India Flexi Cap Fund	Very Good	Very Good
Invesco India Largecap Fund	Very Good	Poor	IDFC Flexi Cap Fund	Poor	Good
ICICI Prudential Bluechip Fund	Excellent	Very Good	IDBI Flexi Cap Fund	Very Good	Very Good
Nippon India Large Cap Fund	Excellent	Poor	Motilal Oswal Flexi Cap Fund	VERY Poor	Poor
Canara Robeco Bluechip Equity Fund	Excellent	Excellent	L&T Flexicap Fund	Poor	Good
Kotak Bluechip Fund	Very Good	Very Good	Axis Flexi Cap Fund	Good	Very Good
Aditya Birla Sun Life Frontline Equity Fund	Very Good	Good	HSBC Flexi Cap Fund	Good	Poor
Edelweiss Large Cap Fund	Very Good	Very Good	PGIM India Flexi Cap Fund	Excellent	Excellent
IDBI India Top 100 Equity	Very Good	Very Good	Quant Flexi Cap Fund	Excellent	Excellent
UTI Mastershare Fund	Very Good	Very Good	Kotak Flexicap Fund	Poor	Good

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PGIM India Large Cap Fund	Very Poor	Poor	SBI Flexicap Fund	Good	Good
Tata Large Cap Fund	Good	Poor	Tata Flexi Cap Fund	Poor	Good
L&T India Large Cap Fund	Good	Poor	Navi Flexi Cap Fund	Good	Good
LIC MF Large Cap Fund	Very Good	Very Good	UTI Flexi Cap Fund	Good	Good
HDFC Top 100 Fund	Good	Poor	JM Flexicap Fund	Good	Good
Navi Large Cap Equity Fund	Good	Poor	Edelweiss Flexi Cap Fund	Very Good	Very Good
IDFC Large Cap Fund	Very Good	Good	Union Flexi Cap Fund	Good	Good
HSBC Large Cap Equity Fund	Very Poor	Poor	Shriram Flexi Cap Fund	Poor	Good
Franklin India Bluechip Fund	Good	Poor	Taurus Flexi Cap Fund	Poor	Good
Indiabulls Bluechip	Good	Poor	LIC MF Flexi Cap Fund	Poor	Good
JM Large Cap Fund	Good	Poor			
Union Largecap Fund	Good	Poor			
DSP Top 100 Equity Fund	Very Poor	Very Poor			
Taurus Largecap Equity Fund	Good	Poor			

Risk –Return Measures and Risk Adjusted Return Measures of Selected Large Cap Mutual Fund Schemes.

Name of Mutual Fund Schemes	Absolute Return (%)	Average Return (%)	Excess Return (α) (ALPHA) (%)	Total Risk (%)	Systematic Risk (%)	Un Systematic Risk (%)	Sharpe Raito	Sortino Raito
Sundaram Large Cap Fund	19.77	19.82	4.13	19.21	20.292	-1.082	0.85	0.95
Mahindra Manulife Large Cap Pragati Yojana	17.97	18.55	1.95	20.51	21.888	-1.378	0.73	0.94
Mirae Asset Large Cap Fund	16.3	17.26	0.39	20.94	22.116	-1.176	0.65	0.76
Axis Bluechip Fund	18.18	18.18	4.03	17.55	17.784	-0.234	0.83	0.7
ITI Large Cap Fund	15.29	16.38	-0.18	20.5	21.66	-1.16	0.62	0.97
SBI Bluechip Fund	16.43	17.55	0.25	21.77	23.028	-1.258	0.64	0.66
Baroda BNP Paribas Large Cap Fund	18.11	18.19	3.28	18.03	18.924	-0.894	0.81	0.74

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Invesco India Largecap Fund	16.91	17.8	1.38	20.74	21.432	-0.692	0.69	0.89
ICICI Prudential Bluechip Fund	16.72	17.62	0.97	20.64	21.888	-1.248	0.68	0. 72
Nippon India Large Cap Fund	13.85	15.96	-2.77	24.56	25.308	-0.748	0.5	0.73
Canara Robeco Bluechip Equity Fund	20.06	19.93	4.66	18.57	19.608	-1.038	0.88	0.56
Kotak Bluechip Fund	17.97	18.55	1.95	20.51	21.888	-1.378	0.73	1
Aditya Birla Sun Life Frontline Equity Fund	15.18	16.39	-0.8	21.44	22.8	-1.36	0.6	0.76
Edelweiss Large Cap Fund	20.47	20.81	3.73	20.62	21.204	-0.584	0.84	0.64
IDBI India Top 100 Equity	19.77	19.82	4.13	19.21	20.292	-1.082	0.85	0.87
UTI Mastershare Fund	17.62	18.29	1.98	20.11	21.204	-1.094	0.73	0.94
PGIM India Large Cap Fund	13.82	14.77	-1.4	19.94	20.976	-1.036	0.56	0.76
Tata Large Cap Fund	15.43	16.88	-0.15	21.43	22.572	-1.142	0.62	0.62
L&T India Large Cap Fund	15.29	16.38	-0.18	20.5	21.66	-1.16	0.62	0.65
LIC MF Large Cap Fund	17.32	17.7	2.48	18.93	19.38	-0.45	0.75	0.66
HDFC Top 100 Fund	12.42	13.99	-3.65	22.66	23.484	-0.824	0.46	0.55
Navi Large Cap Equity Fund	15.55	16.82	-0.64	22.06	23.256	-1.196	0.6	0.62
IDFC Large Cap Fund	16.43	16.92	1.35	19.21	20.064	-0.854	0.69	0.72
HSBC Large Cap Equity Fund	15.39	16.42	0.06	20.25	21.432	-1.182	0.63	0.7 0
Franklin India Bluechip Fund	14.18	15.74	1.39	22.29	22.572	-0.282	0.55	0.62
Indiabulls Bluechip	15.29	16.38	-0.18	20.5	21.66	-1.16	0.62	0.66
JM Large Cap Fund	14.29	15.38	-0.14	18.5	20.52	-2.02	0.58	0.61
Union Largecap Fund	16.29	15.6	-0.22	20.5	20.064	0.436	0.60	0.58
DSP Top 100 Equity Fund	14.39	15.42	0.04	19.25	19.152	0.098	0.58	0.6 0
Taurus Largecap Equity Fund	15.55	16.82	-0.64	22.06	23.256	-1.196	0.6	0.62

Table 2.

Risk –Return Measures and Risk Adjusted Return Measures of Selected Flexi Cap Mutual Fund Schemes.								
Name of Mutual Fund Schemes	**Absolute Return (%)**	**Average Return (%)**	**Excess Return (α) (ALPHA) (%)**	**Total Risk (%)**	**Systematic Risk (%)**	**Un Systematic Risk (%)**	**Sharpe Raito**	**Sortino Raito**
Aditya Birla Sun Life Flexi Cap Fund	16.97	18.45	0.36	22.83	23.48	-0. 65	0.65	0.64
Parag Parikh Flexi Cap Fund	27.13	25.75	10.9	25.75	17.32	8.42	1.2	1.23
DSP Flexi Cap Fund	18.82	19.58	1.97	21.57	21.66	-0.09	0.74	0.75

European Economic Letters
ISSN 2323-5233
Vol 13, Issue 5 (2023)
https://doi.org/10.52783/eel.v13i5.826
http://eelet.org.uk

HDFC Flexi Cap Fund	15.32	16.9	-2.48	24.51	24.396	0.114	0.54	0.63
Canara Robeco Flexi Cap Fund	19.83	19.83	3.68	18.97	19.38	-0.41	0.86	0.87
Franklin India Flexi Cap Fund	17.58	18.71	0.27	22.72	23.028	-0.308	0.67	0.69
IDFC Flexi Cap Fund	13.85	14.94	-1.62	20.04	20.064	-0.024	0.57	0.52
IDBI Flexi Cap Fund	20.32	20.21	4	19.24	19.38	-0.14	0.86	0.92
Motilal Oswal Flexi Cap Fund	9.14	10.58	-7.1	21.45	21.66	-0.21	0.33	0.33
L&T Flexicap Fund	13.69	15.05	2.67	21.11	21.888	-0.778	0.54	0.57
Axis Flexi Cap Fund	19.57	19.46	4.7	17.75	17.328	0.422	0.9	1.04
HSBC Flexi Cap Fund	15.23	16.61	-1.84	22.37	23.028	-0.658	0.58	0.58
PGIM India Flexi Cap Fund	26.91	26.52	8.23	22.56	22.572	-0.012	1.02	1.13
Quant Flexi Cap Fund	31.83	30.23	13.49	22.84	20.292	2.548	1.17	1.64
Kotak Flexicap Fund	14.91	16.03	-1.45	20.78	21.432	-0.652	0.6	0.59
SBI Flexicap Fund	17.45	18.36	0.62	21.24	21.888	-0.648	0.7	0.72
Tata Flexi Cap Fund	17.14	16.63	1	18.32	18.696	-0.376	0.71	0.77
Navi Flexi Cap Fund	16.44	17.52	-0.18	21.28	21.888	-0.608	0.66	0.63
UTI Flexi Cap Fund	20.4	20.94	3.32	21.56	21.66	-0.1	0.81	0.83
JM Flexicap Fund	19.44	19.94	2.82	21.11	20.976	0.134	0.78	0.86
Edelweiss Flexi Cap Fund	18.24	19.05	1.4	21.2	21.66	-0.46	0.73	0.78
Union Flexi Cap Fund	20.13	20.53	3.09	20.82	21.432	-0.612	0.81	0.87
Shriram Flexi Cap Fund	12.84	13.87	-2.27	18.85	19.38	-0.53	0.55	0.58
Taurus Flexi Cap Fund	10.5	12.24	-5.08	20.7	21.204	-0.504	0.42	0.4
LIC MF Flexi Cap Fund	13.01	13.73	-1.81	18.22	18.468	-0.248	0.56	0.56

Table-3 Measurement Model Evaluation

		Convergent Validity		Internal Consistency Reliability		Discriminate Validity
Variable	**Indicators (Appendix 1)**	**Loadings**	**AVE**	**Composite Reliability**	**Cronbac Alpha**	**HTMT**
		> 0.70	**> 0.50**	**> 0.70**	**> 0.70**	**< 1**
	ER	0.817				Yes
Return	ABR AVR	0.773 0.886	0.684	0.866	0.767	
Risk	TRK	0.773				
	SRK URK	0.862 0.850	0.688	0.868	0.772	Yes
Performance Evaluation Behavior	PQ	0.932				
	DP	0.936	0.872	0.932	0.853	Yes
Risk Adjusted Returns	SHR SOR	0.887 0.886	0.786	0.880	0.728	Yes
PEB*RN◎RAR		0.077	1.000	0.939	1.000	Yes
PEB*RK◎RAR		0.071	1.000	0.973	0.953	Yes
Source: Smart PLS Output						

The PLS SEM model application typically takes place in two processes, despite the fact that the components and measuring forecast happen simultaneously. In the initial stage, confirmatory factor analysis is employed to assess the measurement model and assess the reliability and validity of the theoretical frameworks. The structural model assesses the connections (path) between the assumptions of the study model.

European Economic Letters
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Vol 13, Issue 5 (2023)
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http://eelet.org.uk

Chart 1.

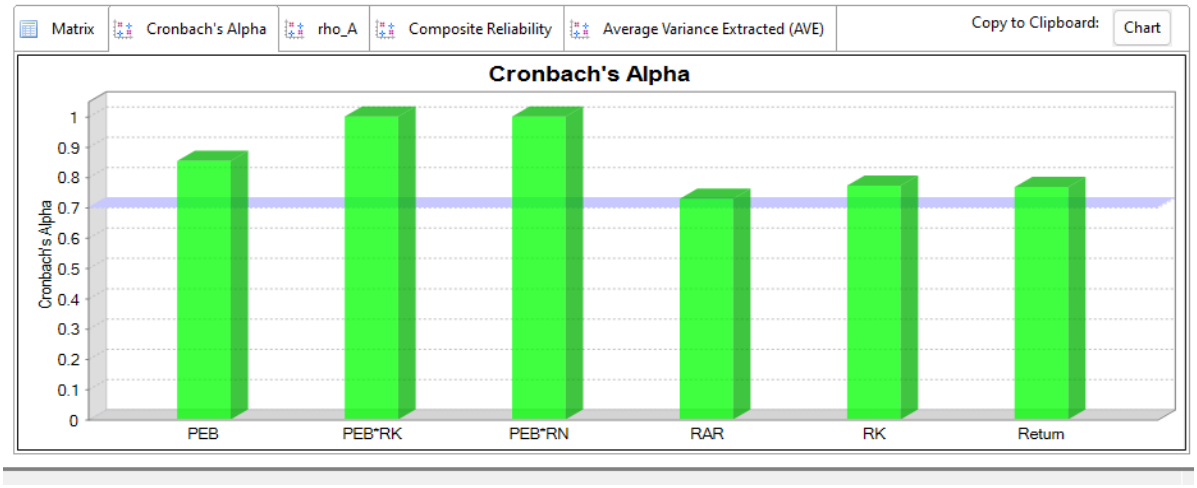


Chart 2.

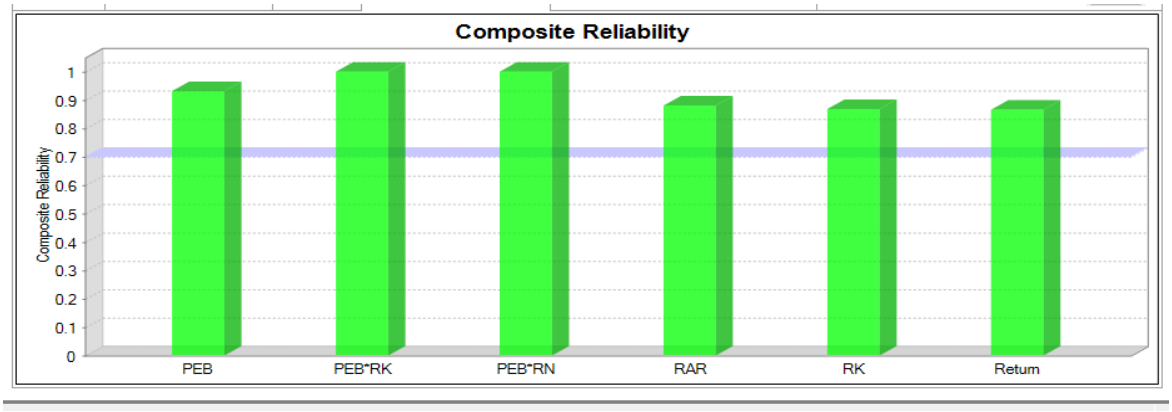
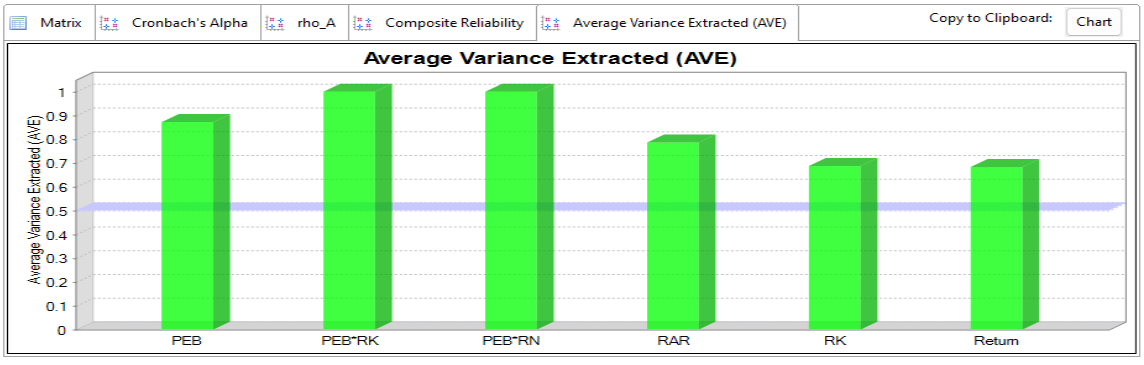


Chart 3.



Internal consistency (Cronbach alpha and composite reliability), convergent validity (indicator reliability and AVE), and discriminant validity are testedthrough the evaluation of measurement models, Fornell-Larcker, 1981). The measurement model of Table test resultsdemonstrates the model's validity and dependability.The outer loading of the PLS models Algorithm run 1 evaluation result are more than 0.70, indicating that all indicators for all variables are legitimate andthat no indicator has to be removed.According to the aforementioned statistics, the reliability indicator shows values for all indicators with loading factors higher than 0.70 and AVE values higher than 0.50. Internal consistency reliability exhibits Cronbach alpha value and composite reliability of better than 0.70.

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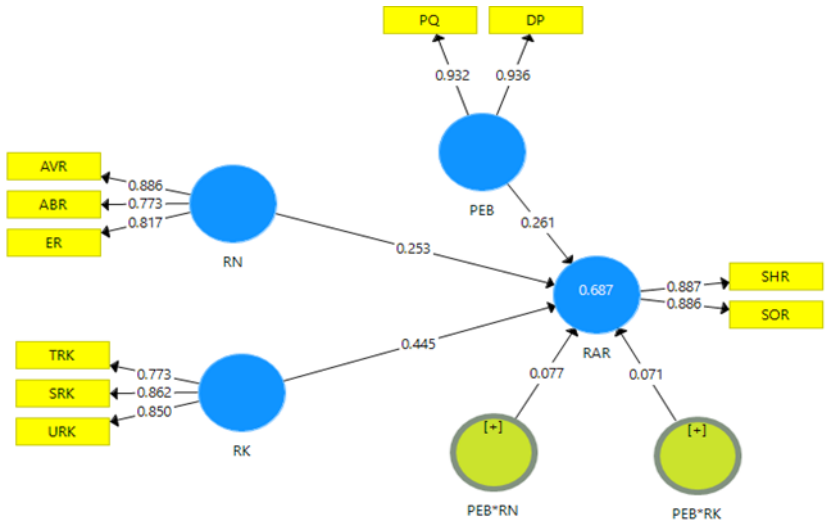

Figure 2:
Measurement Model

Table 4: Fornell-LarkrerCriterian

PEB	0.934					
PEB*RK	0.582	**0.653**				
PEB*RN	0.575	0.783				
RAR	0.691	0.643	0.502	0.887		
RK	0.658	0.403	0.215	0.772		
RN	0.560	0.369	0.347	**0.693**	**0.703**	**0.827**

Source: Smart PLS Output

In order to evaluate the discriminant validity, researchers followed Fornell-(1981) Larcker's advice and used a matrix and the HTMT (heterotrait-monotrait ratio of correlations) ,**Henseler, J., Hubona, G., & Ray, P. A. [16]** .While HTMT's value (Table 3) is less than one, the square root of AVE's value in the Fornell-Larcker 1981 matrix is larger than all other values. As a result, it can be concluded that the discriminant validity of the measurement models was confirmed. **Fornell and Larcer[17]** assert that to assess discriminatory validity, the square root of the Average Variance Extracted (AVE) of a latent variable should be greater than the correlations among the other latent variables.

Structural model:

The coefficient of determination assesses the ability of exogenous constructions to explain endogenous variables (Table 5). The expected R square's requirements range from zero to one. On the basis of the R2 of all endogenous variables, the model may be predicted. R2 values of 0.75, 0.50, and 0.25 suggest that endogenous factors can be utilized to predict outcomes (strong, moderate, and weak). It is obvious that the risk adjusted return endogenous variable has outstanding (0.855) predictive modeling capability.Risk and return factors are exogenous variables that can be used to predict the endogenous variable of risk adjusted return (85%), with factors outside the purview of this study affecting the remaining 20%. The R2 and corrected R2 are represented graphically in the following figures.

Table5.Coefficient of determination

Endogenous Variable	R^2	R^2**Adjusted**

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Vol 13, Issue 5 (2023)
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http://eelet.org.uk

Risk Adjusted Returns	0.687	0.671

Source: Smart PLS output

Chart 4.

Adjusted R2

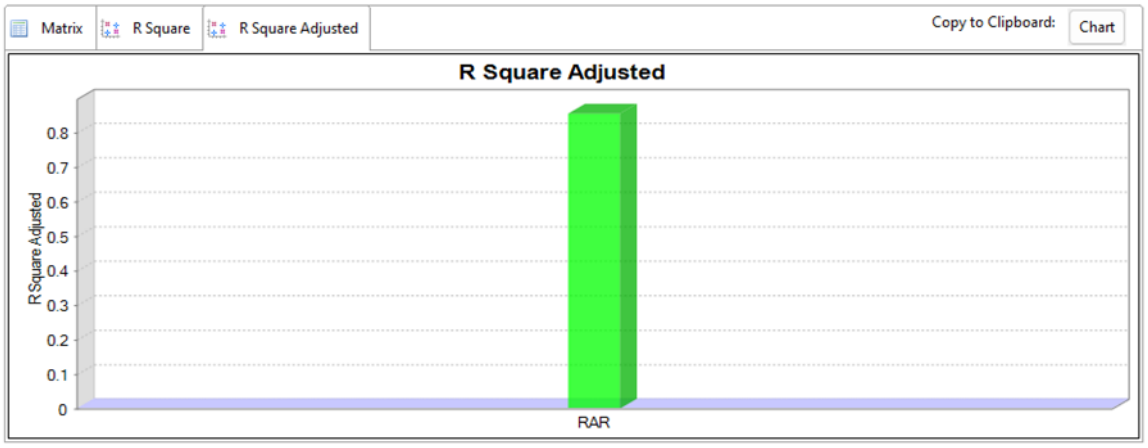

Chart 4 shows the results of the structural model analysis together with the path coefficients and significance levels. The path coefficient, t-value, and p-value are shown in the table. Path coefficients show the strength of the relationship between two constructs (latent variables). This evaluation is similar to how the regression coefficients were evaluated. Analyzing the significance of each coefficient using bootstrapping approaches is similar to indicator weight analysis,**Tenenhaus, M., Vinzi, V. E., Chatelin, Y. M., &Lauro, C [18].**

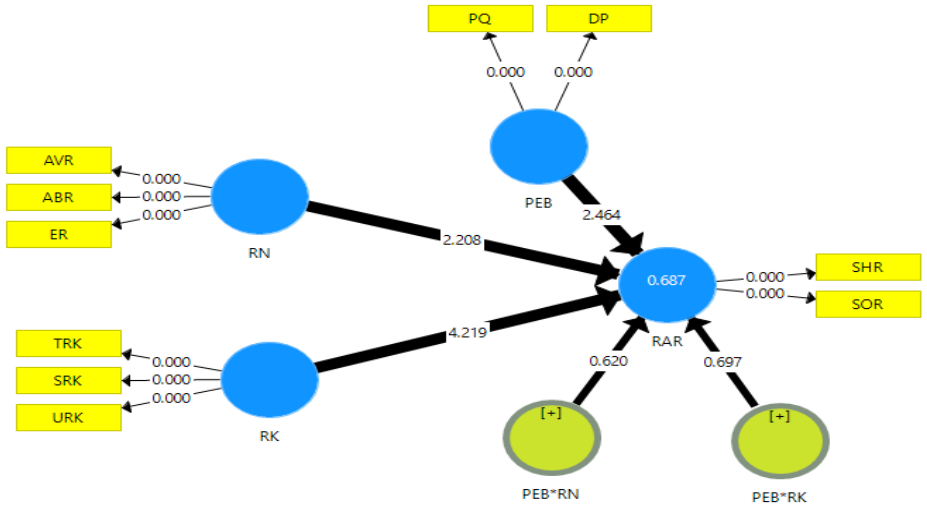

Figure 3: Structural Model

Path coefficients between 0.30 and 0.60 are regarded strong, 0.60 and above are considered extremely powerful, according to **Diamantopoulos, A., Riefler, P., & Roth, K[19].** Path coefficients under 0.30 are considered to be moderately (effects)-causing.

European Economic Letters
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http://eelet.org.uk

Table6. **Path coefficient and effect size**				
	PathCoef	***t*-value**	***p*-value**	f^2
RN□RAR	0.461	2.208	0.028	**0.031**
RK□RAR	0.445	4.219	0.000	**0.042**
PEB*RN **PEB*RK**	0.261 0.358	0.620 0.697	0.016 0.007	**0.091** **0.222**
Source: Smart PLS Output				

The moderating effect illustrates how endogenous variables are impacted by the interactions between exogenous factors (predictors) and moderator variables (T-value > 1.96; path coefficient = 0.205), It has been demonstrated that risk behavior acts as a moderator of the relationship between risk and return factors and risk adjusted returns. The f-square effect size demonstrates that exogenous latent factors have a significant impact (effect degree/effect size) on endogenous variables in accordance with the criteria (0.02 = weak/low, 0.15 = moderate, and 0.35 = strong/high), **Baron, R. M., &**

Kenny, D. A. [20]

Predictive Relevance (Q^2)-

Blindfolding processes are used to describe the model's forecast. Results below 0 are ineffective for prognostication, however results over 0 provide a decent projection. The cross-validated redundancy (Q2) method can be used to assess a model's predictiveness. If the Q2 value is larger than zero, the model is accurately predictive in relation to a construct. Using the cross-validation test hypotheses of the communality and redundancy indices, the structural model quality is assessed. It implies that the cross-validation (CV) communality global ensures that the quality of the structural model fit the indices are positive for all of the blocks while taking into account all of the measurement models.

Table7. **Predictive relevance**		
Variable	**CV Communality**	CV Redundancy
Risk **Return**	0.491 0.515	
Performance Evaluation Behavior	0.523	**0.538**
Risk Adjusted Returns	0.489	
PEB*RN□RAR **PEB*RK□ RAR**	1.000 1.000	
Source: Output of Smart PLS		

The Table displays the Q-square value for all dependent variables greater than 0. All of the outcomes for Q2 are more than 0.35.

4. Conclusion

The study adds new evidence as to applicability of established mutual fund scheme`s ratings different credit rating firms, investment research and Indian fintech and wealth management platforms and investment performance evaluations of large cap and flexi cap in investment decision process of retail investors in India. The present results demonstrate the relationship between the risks and return measures with the risk adjusted returns, Performance evaluation behavior as moderating variable which is focused on productivity of risk and return measures with large cap and flexi-cap mutual

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http://eelet.org.uk

funds. Furthermore, our finding concerning the moderating role of performance the investment decision of retail investors. Therefore, it can be said that the performance evaluation Behavior moderation is higher in the Risk than Return when analyzing the relationship with Risk adjusted return.

References

[1] Naveen, S., &Mallikarjunappa, T. (2022). Performance of Mutual Funds Amidst COVID 19-A Study on Selected Equity Diversified Categories in India. Indian Journal of Research in Capital Markets, 8(4), 8-22.
[2] Nur, T., &Fernandika, F. V. (2022). Factors Influencing Fixed Income Mutual Funds Performance, Journal of Applied Finance & Accounting, 9(1).
[3]Kusuma T. & Kumar, S. (2022). Macroeconomic Performance Analysis of Selected Indian Mutual Funds. NeuroQuantology, 20, pp. 696–703.
[4] Alamelu, L., &Goyal, N. (2022). Investment Performance and Tracking Efficiency of Indian Equity Exchange Traded Funds. Asia-Pacific Financial Markets, 1-24.
[5] Cremers, K. M., Fulkerson, J. A., & Riley, T. B. (2022). Benchmark discrepancies and mutual fund performance evaluation. Journal of Financial and Quantitative Analysis, 57(2), 543-571.
[6] Suvarna, A. (2022). Timing and Selectivity Performance of Mutual Fund Managers: Application of Conditional Models to Indian Equity Diversified Mutual funds. Jindal Journal of Business Research, 11(1), 81-98.
[7] Shanmugam, V. P., & Ali, K. A. (2021). Impact of COVID-19 pandemic on equity-oriented mutual funds: A preliminary analysis of Indian mutual funds industry. International Journal of Financial Engineering, 8(01), 2150006.
[8] Singh, S. (2021). Is Mutual Fund Flow Related with Fund Performance? An Empirical Study of Regular Plan Mutual Funds in India. Indian Journal of Research in Capital Markets, 8(4), 23-37.
[9] Kanagasabai, B., & Aggarwal, V. (2020). The mediating role of risk tolerance in the relationship between financial literacy and investment performance.
[10] Bachal, O.U. and Kale, V.A., 2018. Comparative analysis of multi-cap category mutual funds of different asset management companies.
[11] Berk, J. B., & Van Binsbergen, J. H. (2017). How do Investors compute the discount rate? They use the CAPM (corrected June 2017). *Financial Analysts Journal*, *73*(2), 25-32.
[12] Hair, J. F., Hult, G. T. M., Ringle, C. M., &Sarstedt, M.(2017).*A primer on partial least squares structural equation modeling (PLS-SEM) (2nd Ed.).* Sage Publication.
[13] Chin, W. W., Marcolin, B. L., &Newsted, P. R. (2003). A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. *Information systems research*, *14*(2), 189-217.
[14] Urban, D., &Mayerl, J. (2013). PolitischeEinstellungen: Gibtes die dennüberhaupt? Warnungvoreiner „schlechten "Praxis politischerEinstellungsforschung. ZivileBürgergesellschaft und Demokratie: AktuelleErgebnisse der empirischenPolitikforschung, 259-272.
[15] Fornell, C., &Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics.
[16] Henseler, J., Hubona, G., & Ray, P. A. (2016). Using PLS path modeling in new technology research: updated guidelines. *Industrial management & data systems*, *116*(1), 2-20.
[17] Fornell, C., &Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics.
[18] Tenenhaus, M., Vinzi, V. E., Chatelin, Y. M., &Lauro, C. (2005). PLS path modeling. Computational statistics & data analysis, 48(1), 159-205.
[19] Diamantopoulos, A., Riefler, P., & Roth, K. (2005). The problem of measurement model misspecification in behavioural and organizational research and some recommended solutions. Journal of Applied Psychology, 90(4), 710–730.
[20]Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. Journal of personality and social psychology, 51(6), 1173.