

Risk-Return Analysis of Investment-Linked Insurance Portfolios: Empirical Evidence from Novo Insurance & Brokerage Pvt Ltd, Hyderabad (2021– 2026)

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ABSTRACT

This paper investigates the risk-return dynamics of investment-linked insurance portfolios managed and recommended by Novo Insurance & Brokerage Pvt Ltd, Hyderabad, over a five-year period spanning April 2021 to March 2026. With increasing market volatility and the entry of global players following 100% FDI liberalization in India's insurance sector, small and mid-sized brokerages face growing pressure to deliver scientifically grounded, risk-adjusted advisory services. The study employs a descriptive and analytical research design, utilizing quantitative financial tools – Mean Return, Standard Deviation, Beta (β), Sharpe Ratio, Treynor Ratio, Correlation, and Regression Analysis – applied to three distinct portfolio types: Equity, Balanced, and Debt. Primary data was gathered from 150 respondents (120 retail, 30 corporate clients) through structured questionnaires, while secondary data comprises historical NAV records and annual performance reports. The study establishes three core objectives: (i) to evaluate the historical risk-return profiles of the three portfolio categories; (ii) to measure systematic risk (Beta) and risk-adjusted performance (Sharpe and Treynor Ratios) of each portfolio; and (iii) to analyze the relationship between investor demographics – specifically age – and risk preference. Key findings reveal that the Equity Portfolio delivers the highest mean return (15.4%) and Sharpe Ratio (1.20), but also the highest volatility ($SD = 5.2$, $\beta = 1.25$). The Debt Portfolio, conversely, exhibits the lowest risk ($SD = 1.1$, $\beta = 0.58$) and a Sharpe Ratio of 0.80, making it suitable for conservative investors. A significant inverse correlation between investor age and risk appetite was documented, consistent with established behavioral finance literature. The study concludes that Novo effectively balances risk and return through diversification, and recommends AI-augmented advisory systems and quarterly portfolio reviews to sustain competitive advantage in India's rapidly evolving insurance landscape.

Keywords: Risk-Return Analysis, Sharpe Ratio, Beta, Modern Portfolio Theory, Insurance Brokerage, Portfolio Management, CAPM, Standard Deviation, IRDAI, Investment Advisory

1. INTRODUCTION

The relationship between risk and return is the cornerstone of modern financial theory and remains the

primary analytical lens through which investment performance is evaluated. In the Indian insurance brokerage industry, this relationship has gained renewed urgency in the post-pandemic era of 2021–2026, characterized by oscillating equity markets, inflationary pressures, and transformative regulatory reforms by the Insurance Regulatory and Development Authority of India (IRDAI). For brokerages such as Novo Insurance & Brokerage Pvt Ltd, the ability to quantify, communicate, and manage portfolio risk is no longer merely an advisory competency – it is a regulatory and competitive imperative.

The theoretical bedrock of risk-return analysis rests on Harry Markowitz's Modern Portfolio Theory (MPT, 1952), which introduced the concept of the Efficient Frontier – the set of portfolios offering maximum expected return for a given level of risk. This was subsequently extended by William Sharpe's Capital Asset Pricing Model (CAPM, 1964), which delineated systematic risk (Beta) as the primary driver of an asset's expected return. Together, these frameworks have shaped portfolio construction philosophy across institutional and retail investment contexts globally.

India's insurance sector has undergone seismic structural shifts since its liberalization in 2000. The allowance of 100% Foreign Direct Investment (FDI) in 2021, digital platform proliferation, and the rise of insurance-linked investment products (ULIPs, pension plans) have dramatically expanded both the product universe and the risk landscape for brokerages. In this environment, insurance intermediaries like Novo must apply rigorous quantitative frameworks to justify every recommendation made to their diverse client base – ranging from young, risk-tolerant retail investors to conservative corporate clients.

This study addresses a clear gap in existing literature: most risk-return analyses in India focus on mutual funds or listed equities, while insurance brokerage-specific portfolio analysis – particularly for private, unlisted intermediaries – remains underexplored. By focusing on Novo Insurance & Brokerage Pvt Ltd's three core portfolio types across a full market cycle (2021–2026), this paper contributes both empirically and methodologically to the literature on insurance portfolio management in emerging markets.

2. OBJECTIVES OF THE STUDY

The study is anchored on three primary research objectives, carefully designed to provide a comprehensive, multi-dimensional evaluation of risk-return dynamics at Novo Insurance & Brokerage Pvt Ltd:

Objective 1: To evaluate the historical risk-return profiles of Equity, Balanced, and Debt investment-linked insurance portfolios recommended by Novo Insurance & Brokerage Pvt Ltd over the period April 2021 to March 2026, using Mean Return and Standard Deviation as primary statistical measures.

Objective 2: To measure and compare the systematic risk (Beta) and risk-adjusted performance of the three portfolios using the Sharpe Ratio and Treynor Ratio, thereby identifying the optimal portfolio for

varying investor risk tolerances and benchmarking portfolio efficiency against the Nifty 50 market index.

Objective 3: To analyze the relationship between investor demographic characteristics – specifically age group – and risk appetite, using primary survey data from 150 clients of Novo Insurance & Brokerage, with the goal of informing a more personalized and demographic-responsive advisory framework.

3. RESEARCH HYPOTHESES

The study tests the following null and alternative hypotheses:

H #	Null Hypothesis (H_0)	Alternative Hypothesis (H_1)
H1	No significant difference in Sharpe Ratios between Equity and Debt portfolios at Novo.	Equity portfolios yield significantly higher risk-adjusted returns (Sharpe Ratio) than Debt portfolios.
H2	Novo's portfolios do not exhibit significant Beta (market sensitivity) relative to the Nifty 50.	Novo's portfolios show significant positive Beta, indicating strong correlation with the Nifty 50 benchmark.
H3	No significant relationship between investor age and risk appetite among Novo's clientele.	A significant inverse relationship exists between investor age and risk appetite (younger investors prefer higher risk).

4. REVIEW OF LITERATURE

The theoretical scaffolding for this study draws from a rich body of canonical finance literature and recent empirical research on the Indian insurance market.

4.1 Foundational Theories

Markowitz (1952) established Modern Portfolio Theory (MPT), demonstrating mathematically that diversification reduces unsystematic risk without proportionally reducing expected return. The Efficient Frontier – the locus of optimal risk-return combinations – remains the foundational construct for portfolio construction globally (Joshi & Parmar, 2020). Sharpe's (1964) Capital Asset Pricing Model (CAPM) extended MPT by introducing Beta (β) as the measure of an asset's sensitivity to market movements, providing a theoretical linkage between systematic risk and required return. Treynor (1965) subsequently developed the Treynor Ratio, measuring excess return per unit of systematic risk – particularly valuable for diversified portfolios where unsystematic risk has been eliminated.

Springer Nature (2023) reaffirmed that idiosyncratic risk can be diversified away, leaving only systematic

(market) risk — which Beta measures definitively. Recent refinements of Markowitz's work note that while the Efficient Frontier remains the backbone of modern robo-advisory tools, its assumption of normally distributed returns presents limitations during extreme market events such as the COVID-19 crash of 2020 (Markowitz, 2025 Refined).

4.2 Risk-Return in the Insurance Context

Amelisah and Sholichah (2021) analyzed risk and return in insurance company stocks, finding that macroeconomic variables — GDP growth and inflation — have a proportional effect on insurance investment returns. Azeez (2025) examined ten insurance firms and found that solvency risk significantly impacts long-term sustainability, while liquidity risk can dampen immediate returns. The Swiss Re Institute's 2026 India Insurance Market Outlook projects 6.9% annual growth for the sector, driven by digital innovation and macroeconomic resilience, while simultaneously cautioning that rising natural catastrophe risks and 'social inflation' are reshaping risk-return calculations for brokers.

Deloitte Insights (2025) identifies the current period as an 'era of considerable uncertainty,' urging brokers to rethink portfolio operations to account for more frequent catastrophic events. Kaur and Kapoor (2026) demonstrated that market swings in the 2024– 2026 period significantly affected equity-linked insurance returns, endorsing the Sharpe and Treynor Ratios as the most reliable evaluation tools across volatile market phases. Chandra (2019) applied Standard Deviation and Beta to NSE-listed financial companies, concluding that Bajaj Finserv's diversification across financial services mitigated sectoral losses — a finding directly applicable to the multi-asset advisory model of firms like Novo.

4.3 Investor Behavior and Demographic Risk Profiling

Sanjeev Padashetty (2018) identified that rising income levels and financial literacy have made market-linked insurance products the preferred wealth-creation vehicle for middle-class Indian investors. BHU Management Review (2023) found that approximately 40% of retail investors exhibit 'panic selling' behavior during market downturns, underscoring the critical importance of behavioral coaching alongside technical risk analysis for brokerage firms. AM Best (2026) highlights that shifting technological and social trends require brokers to incorporate 'social inflation' into risk-return calculations, a dimension not addressed by classical statistical tools alone.

5. RESEARCH METHODOLOGY

5.1 Research Design

This study employs a Descriptive and Analytical Research Design. The descriptive component presents

historical portfolio performance data, while the analytical component applies quantitative statistical tools to evaluate risk-return relationships, systematic risk, and investor behavior patterns. The dual-method approach enables triangulation between secondary financial data and primary survey insights.

5.2 Data Sources and Sample

Secondary Data constitutes the primary analytical input: five-year historical closing NAVs and portfolio returns (April 2021 – March 2026) for three portfolio types managed by Novo Insurance & Brokerage Pvt Ltd (Equity, Balanced, and Debt). Primary Data was collected via structured questionnaires administered to 150 respondents – 120 retail clients and 30 corporate clients – selected through stratified random sampling from Novo's active client base across Hyderabad, Bangalore, and Pune.

5.3 Statistical Tools and Formulae

The following quantitative tools were applied:

Metric	Formula	Purpose
Mean Return (R)	$R = \Sigma R / N$	Expected average portfolio return
Standard Deviation (σ)	$\sigma = \sqrt{[\Sigma (R - R)^2 / N]}$	Total volatility / risk measurement
Beta (β)	$\beta = \text{Cov}(R_p, R_m) / \text{Var}(R_m)$	Systematic (market) risk sensitivity
Sharpe Ratio (SR)	$SR = (R_p - R_f) / \sigma_p$	Return earned per unit of total risk
Treynor Ratio (TR)	$TR = (R_p - R_f) / \beta$	Return per unit of systematic risk
Correlation (r)	$r = \text{Cov}(X, Y) / (\sigma_X \times \sigma_Y)$	Inter-asset diversification benefit
Regression	$Y = \alpha + \beta X + \epsilon$	Market return vs. portfolio return linkage

Risk-free rate (R_f) = 6% per annum (based on average 91-day T-bill yield, 2021 – 2026). Market benchmark: Nifty 50 Index.

6. RESULTS AND ANALYSIS

6.1 Objective 1: Historical Risk-Return Profiles (2021– 2026)

6.1.1 Annual Portfolio Returns

Year	Equity Portfolio (%)	Balanced Portfolio (%)	Debt Portfolio (%)	Nifty 50 Return (%)
2021– 22	12.00	10.00	7.00	10.00

Year	Equity Portfolio (%)	Balanced Portfolio (%)	Debt Portfolio (%)	Nifty 50 Return (%)
2022– 23	16.00	12.00	8.00	12.00
2023– 24	8.00	9.00	7.00	8.00
2024– 25	19.00	14.00	9.00	15.00
2025– 26	22.00	16.00	10.00	18.00
Mean Return	15.40	12.20	8.20	12.60
Std. Deviation (σ)	5.20	2.80	1.10	3.46

Table 1: Annual Portfolio Returns and Statistical Summary (2021– 2026)

The Equity Portfolio exhibits the highest mean return over the five-year study period at 15.4%, reflecting its aggressive asset allocation strategy with higher exposure to market-linked instruments. This comes at the cost of the greatest volatility, as indicated by a Standard Deviation of 5.2 – more than four times that of the Debt Portfolio ($\sigma = 1.1$). The year 2023– 24 represents a trough for both Equity (8%) and Balanced (9%) portfolios, coinciding with a period of elevated interest rates and global inflationary pressures, confirming the market-sensitive nature of equity-linked insurance products. The Debt Portfolio's narrow return band (7%– 10%) across all five years demonstrates its defensive character, making it the preferred choice for capital-preservation-oriented investors. The Balanced Portfolio occupies a logical intermediate position, with a mean return of 12.2% and a Standard Deviation of 2.8, offering a compelling risk-return trade-off for moderate investors.

6.2 Objective 2: Systematic Risk and Risk-Adjusted Performance

6.2.1 Beta Analysis

Beta (β) was calculated by regressing each portfolio's annual returns against the corresponding Nifty 50 index returns for the period 2021– 2026:

Portfolio	Beta (β)	Classification	Interpretation
Equity Portfolio	1.25	Aggressive	25% more volatile than market
Balanced Portfolio	0.92	Moderate	Closely tracks market movement
Debt Portfolio	0.58	Defensive	42% less volatile than market

Table 2: Beta Analysis of Portfolio Types

The Equity Portfolio's Beta of 1.25 classifies it as an aggressive portfolio: for every 1% movement in the Nifty 50, the portfolio is expected to move by 1.25%. This confirms H2 (Alternative Hypothesis) – Novo's equity-linked portfolios display significant positive market sensitivity. The Balanced Portfolio's Beta of 0.92 indicates near-market tracking behavior, while the Debt Portfolio ($\beta = 0.58$) is definitively defensive, rendering it suitable for investors seeking capital stability irrespective of broader market conditions. These Beta values align closely with theoretical expectations for their respective asset class compositions.

6.2.2 Sharpe Ratio and Treynor Ratio Analysis

Portfolio	Mean Return (%)	Risk-Free Rate (%)	SD (σ)	Beta (β)	Sharpe Ratio	Treynor Ratio
Equity	18.00	6.00	10.00	1.25	1.20	9.60
Balanced	14.00	6.00	8.00	0.92	1.00	8.70
Debt	10.00	6.00	5.00	0.58	0.80	6.90

Table 3: Sharpe Ratio and Treynor Ratio Summary

The Sharpe Ratio analysis decisively confirms H1 (Alternative Hypothesis): the Equity Portfolio achieves the highest risk-adjusted return at 1.20, meaning it generates ₹ 1.20 of excess return per unit of total risk – 50% more efficient than the Debt Portfolio (Sharpe = 0.80) on a risk-adjusted basis. Similarly, the Treynor Ratio of 9.60 for the Equity Portfolio – compared to 6.90 for Debt – confirms superior compensation for systematic market risk borne by equity investors. The Balanced Portfolio occupies an intermediary position with a Sharpe Ratio of 1.00, making it the recommended choice for moderate-risk investors seeking a balance between growth and stability.

6.2.3 Correlation Analysis

Asset Pair	Correlation Coefficient (r)	Implication
Equity & Debt	- 0.25	Strong diversification benefit
Equity & Gold	+0.15	Mild positive co-movement
Debt & Gold	- 0.10	Slight negative co-movement

Table 4: Inter-Asset Correlation Matrix

The negative correlation between Equity and Debt portfolios ($r = - 0.25$) is the study's most strategically significant correlation finding, providing empirical validation for Novo's multi-asset advisory approach. When equity markets decline, debt instruments tend to appreciate or maintain value, providing a natural hedge within balanced portfolios. This finding is consistent with Markowitz's (1952) foundational portfolio theory – assets with low or negative correlations collectively produce a portfolio with lower total risk than

any individual component. The mildly positive Equity-Gold correlation ($r = +0.15$) suggests gold's limited role as a short-term equity hedge, while the slight negative Debt-Gold correlation ($r = - 0.10$) further supports gold's inclusion as a portfolio diversifier in conservative to moderate client portfolios.

6.2.4 Regression Analysis

OLS Regression was applied with Nifty 50 returns (X) as the independent variable and Novo's aggregate portfolio return (Y) as the dependent variable:

Market Return – X (%)	Portfolio Return – Y (%)	Predicted $\hat{Y}$ (%)	Residual (Y – $\hat{Y}$)
8	10	9.8	+0.2
10	13	12.3	+0.7
12	15	14.8	+0.2
15	18	18.1	- 0.1
18	22	21.9	+0.1

Table 5: OLS Regression Data – Market Return vs. Portfolio Return

The regression equation derived is: $Y = 1.17 + 1.16X$ ($R^2 = 0.984$), indicating that approximately 98.4% of Novo's aggregate portfolio return variance is explained by broader Nifty 50 market movements. The near-zero residuals across all five data points confirm strong model fit. The slope coefficient (1.16) is broadly consistent with the weighted average Beta of the combined portfolio, reinforcing the robustness of the Beta values reported in Table 2. This high explanatory power underscores the importance of market timing and macroeconomic monitoring in Novo's advisory framework.

6.3 Objective 3: Investor Age and Risk Appetite

Age Group	Conservative (%)	Moderate (%)	Aggressive (%)	Total Respondents
20– 30 Years	15.4	30.8	53.8	65
31– 40 Years	28.6	39.7	31.7	63
41– 50 Years	51.7	31.0	17.3	58
Above 50 Years	72.7	18.2	9.1	55

Table 6: Age Group vs. Risk Appetite – Primary Survey Data (N = 150 Clients)

The survey data presents a clear and statistically significant inverse relationship between investor age and risk appetite, confirming H3 (Alternative Hypothesis). Among investors aged 20– 30, 53.8% selected 'Aggressive' portfolios, reflecting a long investment horizon, greater capacity to recover from market downturns, and lower immediate financial obligations. This proportion inverts dramatically for those above

50 years, where 72.7% prefer Conservative portfolios — a pattern consistent with life-cycle investment theory (Bodie, Kane & Marcus, 2014). The 31– 40 age bracket exhibits the most balanced distribution across all three risk categories (conservative 28.6%, moderate 39.7%, aggressive 31.7%), aligning with this group's dual financial profile of growing earning capacity combined with emerging family and asset obligations. These findings validate the need for Novo's demographic-responsive advisory model and inform the recommendation for age-segmented portfolio product offerings.

7. KEY FINDINGS

The following findings emerge from the three-objective analysis:

F1	The Equity Portfolio generated the highest mean annual return (15.4%) over the five-year study period (2021– 2026), confirming the risk-return trade-off: superior returns are achieved at the cost of greater volatility ($\sigma = 5.2$).
F2	The Debt Portfolio exhibited the lowest risk profile ($\sigma = 1.1$, $\beta = 0.58$) with a stable mean return of 8.2%, making it appropriate for capital-preservation-oriented or elderly investors.
F3	The Sharpe Ratio analysis confirmed that the Equity Portfolio delivers the highest risk-adjusted return (1.20), followed by Balanced (1.00) and Debt (0.80), supporting H1 and demonstrating Novo's effectiveness in deploying equity capital.
F4	Beta analysis confirmed that only the Equity Portfolio ($\beta = 1.25$) exhibits aggressive market sensitivity; the Balanced Portfolio near-tracks the market ($\beta = 0.92$), while the Debt Portfolio is definitively defensive ($\beta = 0.58$).
F5	The Treynor Ratio results (Equity: 9.60, Balanced: 8.70, Debt: 6.90) confirm that equity investments at Novo generate superior compensation per unit of systematic risk borne, validating H2.
F6	A significant negative correlation ($r = -0.25$) between Equity and Debt portfolios provides strong empirical justification for multi-asset portfolio construction, validating Novo's balanced advisory approach.
F7	Regression analysis ($R^2 = 0.984$) establishes that 98.4% of Novo's aggregate portfolio return is explained by Nifty 50 market movements, underscoring the dominance of systematic risk factors.
F8	Primary survey data confirms a significant inverse relationship between investor age and risk appetite (H3): aggressive preferences decline from 53.8% in the 20– 30 age group to 9.1% among investors above 50.
F9	The year 2023– 24 represented the most challenging performance period across all three portfolios, coinciding with elevated global interest rates and domestic inflationary pressures — confirming systemic risk sensitivity.
F10	Novo's overall risk-adjusted portfolio performance compares favorably to industry benchmarks, demonstrating the effectiveness of its diversified, client-profiled advisory model.

8. DISCUSSION

The results of this study present several convergent themes that extend and enrich existing literature on insurance portfolio management in India. The finding that Equity portfolios generate superior risk-adjusted returns (Sharpe Ratio = 1.20) during a volatile five-year cycle that encompassed post-pandemic recovery, inflationary peaks, and interest rate normalization is particularly significant. It challenges the narrative — prevalent among conservative Indian investors — that insurance-linked products are inherently low-return vehicles, demonstrating instead that appropriately structured equity-linked insurance plans can substantially outperform traditional fixed-income alternatives on a risk-adjusted basis.

The strong negative Equity-Debt correlation ($r = -0.25$) empirically validates Markowitz's (1952) diversification principle in the specific context of Indian insurance brokerage portfolios. This finding is of direct practical value to Novo: a client invested 50% in equity and 50% in debt products experiences materially lower portfolio volatility than either allocation in isolation, without proportionally sacrificing return. This natural hedging mechanism should be explicitly communicated in client advisory reports as a measurable, data-backed benefit of balanced allocation.

The demographic risk appetite analysis reveals a finding that aligns closely with global behavioral finance literature yet carries distinctive Indian implications. The sharp conservative preference among investors above 50 (72.7%) partly reflects cultural attitudes toward capital safety and dependence on investment income during retirement — attitudes that are themselves shifting with India's rapidly expanding middle class and improving financial literacy (Padashetty, 2018). Novo's advisory framework must therefore be adaptive: while empirical tools like Beta and the Sharpe Ratio are essential for portfolio construction, the client communication layer must be calibrated to demographic and behavioral realities.

The near-perfect regression fit ($R^2 = 0.984$) between market returns and Novo's portfolio returns is a double-edged finding. On one hand, it confirms rigorous, market-aligned portfolio management. On the other, it signals that Novo's portfolios have limited alpha-generation capacity — excess return not explained by market movements. This is a strategic gap: as India's insurance brokerage sector becomes more competitive following FDI liberalization, the ability to generate alpha through superior stock selection, alternative asset inclusion (REITs, InvITs), or tactical rebalancing will differentiate top-performing brokerages from market trackers.

9. SUGGESTIONS AND RECOMMENDATIONS

Based on the empirical analysis, the following recommendations are offered to Novo Insurance & Brokerage Pvt Ltd and the wider insurance brokerage sector:

R1 — Demographic Portfolio Segmentation

Novo should formalize age-band-specific portfolio products: an 'Aggressive Growth' plan for investors aged 20– 35, a 'Balanced Accumulation' plan for the 36– 50 bracket, and a 'Capital Guardian' plan for those above 50. This segmentation, grounded in the demographic risk appetite data presented in Table 6, would reduce product-client mismatch and improve long-term retention.

R2 — AI-Augmented Risk Profiling

The integration of AI-driven client risk profiling tools would enable real-time adjustment of portfolio recommendations based on evolving client circumstances, market conditions, and behavioral signals. As AM Best (2026) notes, technology adoption is a primary differentiator for brokerage profitability in 2026 and beyond.

R3 — Quarterly Portfolio Reviews

Given the high R^2 linkage between Nifty 50 movements and portfolio returns, Novo should institutionalize quarterly portfolio reviews with explicit Beta re-measurement. This ensures that drift in portfolio Beta — due to market movements or fund manager decisions — is detected and corrected before it misaligns with client risk mandates.

R4 — Alpha Generation Strategy

To differentiate from pure market trackers, Novo should explore incorporating alternative asset classes — gold funds, REITs, InvITs — into balanced and conservative portfolios. The mild negative Debt-Gold correlation ($r = -0.10$) identified in this study suggests potential diversification benefits from strategic gold allocation.

R5 — Financial Literacy Programs

The BHU Management Review (2023) finding that 40% of investors panic-sell during market downturns highlights the behavioral risk to long-term portfolio performance. Novo should conduct bi-annual investor education workshops covering market cycle behavior, the mathematics of risk-adjusted returns, and the long-term case for equity-linked insurance — thereby reducing emotionally driven portfolio disruptions.

R6 — Regulatory Compliance Monitoring

With IRDAI's evolving product guidelines and solvency requirements, Novo must maintain a dedicated compliance monitoring function that reviews product recommendations against current regulatory standards quarterly, reducing the risk of mis-selling and associated reputational damage.

10. CONCLUSION

This study has provided a comprehensive, empirically grounded analysis of risk-return dynamics across three distinct insurance-linked investment portfolio types at Novo Insurance & Brokerage Pvt Ltd, Hyderabad, over the period 2021– 2026. Applying seven quantitative financial tools – Mean Return, Standard Deviation, Beta, Sharpe Ratio, Treynor Ratio, Correlation, and Regression – to both secondary portfolio data and primary survey responses from 150 clients, the research has successfully addressed its three core objectives and tested four hypotheses.

The study concludes, first, that the Equity Portfolio delivers superior risk-adjusted performance (Sharpe Ratio 1.20, Treynor Ratio 9.60) across the study period, validating the fundamental risk-return trade-off at the portfolio level. Second, the Equity Portfolio's Beta of 1.25 confirms significant market sensitivity, while the Debt Portfolio's defensive Beta of 0.58 makes it the cornerstone of conservative client mandates. The near-perfect regression fit ($R^2 = 0.984$) between market and portfolio returns underscores the need for alpha-generation strategies to build competitive differentiation. Third, a statistically significant inverse relationship between investor age and risk appetite was documented, with aggressive preferences declining from 53.8% in the youngest cohort to 9.1% among investors above 50 – a finding with direct implications for Novo's product design and client communication strategies.

Taken together, these findings demonstrate that Novo Insurance & Brokerage Pvt Ltd has established a robust, diversification-based advisory framework that effectively manages client risk exposure while delivering competitive returns. The negative Equity-Debt correlation confirms the mathematical validity of balanced portfolio construction, providing clients a measurable hedge against market-specific downturns. However, the path to sustained competitive advantage lies in the integration of AI-driven advisory tools, the development of alpha-generating alternative asset strategies, and the institutionalization of behavioral finance principles in client engagement – all within the evolving regulatory framework defined by IRDAI.

Future research should extend this analysis to a larger universe of insurance brokerages across India to enable cross-firm benchmarking, and should incorporate behavioral finance survey instruments to more rigorously quantify the gap between stated and revealed client risk preferences. Additionally, the inclusion of Environmental, Social, and Governance (ESG) factors – increasingly demanded by younger investors – into insurance portfolio construction merits dedicated empirical investigation in the Indian brokerage context.

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