

CAPM vs Real-World Investing in India: Why Investors Rarely Use the Model Directly

Author: Abir Choudhary

Institution: Heritage Xperiential Learning School, Gurugram, India

Mentor: Divya Singh (Ascensions Careers)

ABSTRACT

The Capital Asset Pricing Model (CAPM) is amongst the most commonly taught theories regarding risk and return relationship in finance education; however, despite being central to much of the university coursework associated with finance, it is seldom used directly by individuals making actual investment decisions. The gap between theory and application is particularly well illustrated in India, where there has been considerable growth in both the number of retail investors, the number of mutual funds, and the number of fintech platforms for investment. The purpose of this paper is to understand why CAPM remains a theory, and how investors operate when making investment decisions.

In order to explore how individual and institutional investors in India rely more heavily on asset allocation, risk profiles, regulation, and behavioural finance than they do upon CAPM's expected return calculations, the study examined qualitative case studies of Indian mutual funds, Indian fintech investment platforms, and educational material associated with investment.

There are two main conclusions drawn from the findings of the study. First, while CAPM offers an important academic principle for helping to understand market risk, it is used very little in practice because of the simplicity of the assumptions underlying the model.

Second, there is a significant difference between textbook finance models and their application in a real-world context, and this is especially true in emerging economies such as India.

Introduction

One of the foundational theories taught in finance is the Capital Asset Pricing Model (CAPM), which connects the two fundamental financial concepts of risk and return. CAPM explains the relationship between the risk of an investment and the returns investors expect to earn from it (Sharpe, 1964). CAPM is grounded in a straightforward linear relationship: the higher the market risk, the greater the return an investor requires.

At the heart of this model is market risk, measured through a concept called beta, which shows how much an asset moves as compared to the market and helps determine an asset's expected return. Because this model is straightforward and simple to apply in theory, it continues to be widely used in the teaching of finance to introduce students to the concept of asset pricing.

Figure 1 below shows the gap between theoretical CAPM return calculation and how real investors in India make practical investment decisions.

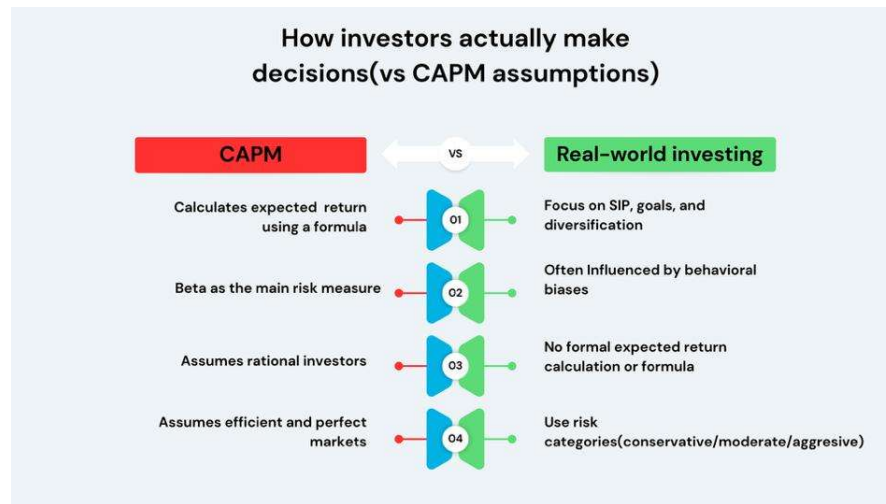


Figure 1. How Investors Actually Make Decisions (vs. CAPM Assumptions)

Note - Author's synthesis of investor decision-making processes relative to CAPM's assumptions, based on regulatory and industry guidance (SEBI, n.d.-a; AMFI, 2025; Statman, 2014).

India's investment ecosystem has grown rapidly in recent years, as seen by rising retail engagement, mutual fund expansion, and extensive use of digital investment platforms, even though only around 10% of Indian households currently invest directly in securities (Outlook Business, 2025). India has drawn foreign direct investment (FDI) of Rs. 66,37,734 crore during the last ten years (DPIIT, 2025), which is indicative of increased investor confidence and the nation's expanding economic depth. In this context, appropriateness, regulation, and investor protection are prioritized more. Portfolio diversification, asset allocation, and risk profiling are accorded considerably greater prominence than mathematical pricing models among Indian investors. Behavioural biases such as herd behaviour, risk aversion, short-termism, and overconfidence significantly shape Indian investor behaviour, reducing reliance on mathematical pricing models (Statman, 2014). Therefore, investors find themselves vulnerable when adopting such models. Financial professionals question the empirical validity of CAPM, despite the fact that its theories sound reasonable conceptually. While some research provided empirical support, the majority of studies produced conflicting results on the CAPM's main hypotheses. Additionally, the studies that provided empirical support for the CAPM for asset valuation were conducted in developed capital markets such as the United States. However, CAPM theories show limited empirical evidence in emerging markets, like India.

This study analyses and compares three case studies-mutual funds, FinTech platforms, and investor education, to examine a simple central question: why is CAPM, though widely taught in finance classes, rarely used by investors in India?

Capital Asset Pricing Model (CAPM): Theory and Explanation

The Capital Asset Pricing Model (CAPM) is a model that describes the relationship between the expected return and risk of investing in a security. It is a finance model that asserts that only systematic market risk (beta) should be priced, forming a linear relationship between risk and expected return (Sharpe, 1964). The model suggests that investors can only achieve higher returns by taking on more risk. CAPM also serves as a theoretical benchmark for evaluating investments. Investors can compare the expected CAPM return of a security with its actual return (Fama & French, 2004). If the CAPM return is higher, then the security may be overvalued. Similarly, if the actual return is higher, the security may be considered undervalued. This is why, despite being a very simple theoretical model, CAPM is considered a foundational framework in finance.

The CAPM formula for calculating the expected return of an asset, given its risk, is as follows:

$$R_e = R_f + \beta(R_m - R_f)$$

Here, R_f represents the risk-free rate, which is the hypothetical return on investment of a security with no risk. In practice, government securities such as the treasury bill are used as a proxy for the risk-free rate, since governments are considered extremely reliable borrowers and the chance of defaults is extremely low. The purpose for the risk-free rate is that investors expect to be compensated for the time-value of money. The risk-free rate in the CAPM formula accounts for the time-value of money, and the other components of the formula consider the additional risk that the investor is taking on.

Beta(B) measures the sensitivity of the security's return to the movements in the overall market. A beta of 1 indicates that the asset moves with the market. If it is more volatile than the market and thus is riskier it will have a beta greater than 1. On the other hand, a beta less than 1 indicates lower volatility and risk and therefore reduces the risk on a portfolio.

The term $(R_m - R_f)$ is known as the market risk premium, which is the return expected from the market above the risk-free rate (Fama & French, 2004). This premium is essential because investors will only invest in a risky asset if they are compensated with higher expected return.

The Capital Asset Pricing Model is built on a number of underlying assumptions that do not always hold true. Firstly, CAPM assumes that investors are rational and risk-averse, meaning they always prefer higher returns and seek to minimize their risk. They make investment decisions only based on this. Secondly, the model assumes that financial markets are efficient and all relevant information is open to investors. Due to this, no investor can make abnormal profits. Another key assumption is that investors can borrow and lend unlimited amounts at the risk-free rate. CAPM assumes that the risk-free rate will remain constant over the discounting period. Also, investors are assumed to have homogeneous expectations (Roll, 1977) and there are no taxes or transaction costs. All of these assumptions simplify the model and help establish a

clear theoretical relationship between risk and return, although these conditions do not hold perfectly in real markets.

Literature Review

CAPM as a Foundational Model in Finance

The capital asset pricing model (CAPM) is considered a pioneer model in asset pricing and it is widely used within the financial domain. Several researchers around the world have carried out relevant studies in the capital markets of various countries to test how well CAPM works in practice (Aggarwal & Agarwal, 2016; Anwar & Kumar, 2018). The results of these studies are found to be mixed. In the early period of the model, most studies found positive results especially in the developed stock markets. However recent studies particularly in the Indian context show mixed and inconsistent results (Rabha & Singh, 2022; Asthana et al., 2024). This shows that while CAPM is very relevant as a theoretical concept, its relevance in explaining returns across different markets varies. The way investors behave and their financial literacy can affect how well models like CAPM work in the real world (Baveja & Verma, 2024).

Empirical Critiques and Limitations of CAPM

The Capital Asset Pricing Model (CAPM), mainly relies on the concept of Beta to measure how risky an investment in a particular asset is as compared to the market. However, in practice, markets don't always behave in line with the assumptions of the model. Empirical studies have shown that beta alone is unable to fully explain why different assets earn different returns, leading to questions and doubts about CAPM's predictive abilities (Fama & French, 1992). For instance, CAPM assumes that portfolios can be perfectly diversified to remove all unsystematic risk and that investors can borrow at a risk-free rate. Both these assumptions are often far from reality. CAPM assumes that markets are efficient, ignoring the effects of information gaps, behavioural biases, and structural inefficiencies (Baveja & Verma, 2024). The core component of the CAPM model, Beta, is calculated using past data. Consequently, it may not accurately capture future risk especially in light of shifting market conditions and asset specific factors. In some cases, Beta, may be disproportionately influenced by certain time periods making it an unreliable reflection of long term risk. Market anomalies such as size effect, value effect, and momentum also influence returns and this directly contradicts CAPM's assumption that beta is the only priced risk factor (Jegadeesh & Titman, 1993). The same flaws are inherited by other theoretical models based on beta, making them somewhat unreliable in explaining real-world world investor behaviour.

CAPM in Emerging and Developing Markets

Questions have often been raised about the ability of the Capital Asset Pricing Model (CAPM) to fully and reliably explain how returns behave in the real-world, especially in countries that are still developing and have conditions which are vastly different from the economically developed world. Studies show that CAPM is less effective in emerging markets, where prices are more

unpredictable and do not always reflect available information (Estrada, 2002). For example, in the Indian stock market, CAPM has shown mixed and unreliable results in explaining returns (Aggarwal & Agarwal, 2016; Anwar & Kumar, 2018)

As a result, economists and statisticians have started looking at other more complex models that take into consideration additional factors affecting risk and returns. For example, Multi-factor models like the Fama French three factor and Carhart four factor models have been consistently outperforming CAPM in predicting returns (Fama & French, 2004). Research has found patterns in stock return that CAPM cannot explain. This suggests that CAPM is too simple to capture the complexities of the modern financial markets. Figure 2 shows conditions that break CAPM's assumptions in developing economies like India.



Figure 2. Why CAPM Fails in Emerging Markets

Note-. Adapted from research on CAPM's limitations in emerging and developing markets (Estrada, 2002; Harvey, 1995).

Practical Alternatives to CAPM in Investment Decision-Making

CAPM is a well-known model that has been widely used and has shown some success in developed markets. However, the same model does not perform as well in emerging, developing markets (Harvey, 1995). There are many reasons for this, but one leading factor is that many emerging markets are not fully integrated with global financial systems. Many voices now question the CAPM model and argue against using it to estimate returns in developing markets (Estrada, 2002). The biggest problem with these markets is high volatilities and uncertainty, which can make price and market movements less predictable (Estrada, 2002).. At the same time, structural and regulatory factors such as weaker financial systems, uncertain investor protection, and lack of transparency add to the difficulty of measuring risk and return in these emerging

markets. Because of this, CAPM becomes less reliable, as the relationship between beta and risk in these markets is not as stable as the model assumes (Harvey, 1995).

Table 1, below, summarises findings from several studies documenting the limitations of CAPM in the Indian market.

Table 1. Findings from CAPM research in India

Observed Effect	Evidence
Beta unstable	Harvey (1995)
Multi-factor models outperform	FF literature
Market inefficiency	India/Asia studies
Retail investors not using CAPM	SEBI/AMFI reports

Note- Summarizes findings reported in Aggarwal & Agarwal (2016), Anwar & Kumar (2018), Panwar (2016), Shrivastav (2017), Rabha & Singh (2022), and Asthana et al. (2024).

In reality, real investors do not rely on CAPM to guide them on their investment decisions (Rabha & Singh, 2022; Fama & French, 2004). Instead their focus is on asset allocation and diversification where investments are spread across different asset classes like bonds, shares, deposits, etc, in a bid to balance returns and manage risk. In fact, asset allocation is a more preferred and practical strategy as compared to CAPM for long-term investing, especially when following a goal based approach (Statman, 2014). For example, Indian markets typically follow diversification, benchmark tracking, and risk diversification rather than relying on CAPM's expected return formula (AMFI, 2024; Aggarwal & Agarwal, 2016; Anwar & Kumar, 2018). Overall, these approaches provide a more flexible and realistic basis for investment decisions compared to CAPM which is more rigid and theoretical in nature (Jegadeesh & Titman, 1993).

Empirical Analysis: CAPM vs Actual Returns (Tata Motors)

In order to illustrate the gap between predicted returns using the capital asset pricing model (CAPM) and actual market returns, this section conducts a simple market analysis study using Tata Motors Ltd., a major Indian automobile company, listed in the NIFTY 50 stock index.

Using the CAPM formula, the expected return is calculated using the following values:

Risk-Free Rate(R_f): 6.7% (Indian government bond yield)

Market Return(R_m): 12% (NIFTY 50 10-year average return)

Beta: 1.4 (Tata Motors beta value based on publicly available financial data)

The risk-free rate is based on the 10-year Indian government bond yield, the market return reflects the 10-year historical average of the NIFTY 50 index, and beta was obtained from publicly available financial data sources (e.g., NSE/Yahoo Finance).

Using the CAPM formula, this gives:

$$\begin{aligned}\text{Expected Return (CAPM)} &= 6.7\% + 1.4(12\% - 6.7\%) \\ &= 14.2\%\end{aligned}$$

Actual Return Calculation:

$$\text{Actual Return} = (\text{Ending Price} - \text{Beginning Price}) / \text{Beginning Price} \times 100$$

Based on Tata Motors' 1-year trailing performance (June 2025 – June 2026), the stock delivered an actual return of **8.77%** (Source: NSE/Yahoo Finance historical price data).

Metric	Value
CAPM Expected Return	~14%
Actual Return	~9%

Tata Motors' actual 1-year return of 8.77% fell short of its CAPM-predicted return of 14.2%, a gap of roughly 5.4 percentage points. Per the theoretical framework outlined in Section 2.1, this suggests the stock may have been overvalued relative to the risk-return relationship CAPM predicts, or that beta failed to fully capture the stock's actual risk and return dynamics — showing how CAPM-predicted returns can differ from actual returns and highlighting some of the challenges of applying CAPM in the Indian market. It should also be noted that Tata Motors underwent a corporate demerger in October 2025, splitting into separate commercial vehicle and passenger vehicle entities; the return figure used here reflects the continuing listed entity.

Note. This example is provided for illustrative purposes only and is not intended to serve as a definitive empirical test of CAPM. The results are based on publicly available data for a single company and time period.

Materials and Methods

This study investigates the split of using the Capital Asset Pricing Model (CAPM) versus real-world behaviour by utilizing two methods: (1) an exhaustive search of the literature and (2) an analysis performed on several individual case studies for comparing actual behaviour versus economic theory. This research relies entirely on previously published materials or publicly available secondary data. No statistical testing, surveying, interviewing, or primary data collection will be completed.

This research adopts a hybrid methodology, combining:

Literature Review: By reviewing the existing literature regarding CAPM through finance textbooks, research articles, government laws, and educational resources targeted at individual investors, a conclusion was reached regarding the theoretical basis of CAPM, its assumptions, and its use within the educational environment; emphasis was placed on how the relationship between risk and return was defined, how "beta" is defined and utilized, and the assumptions associated with rational behaviours of investors and efficient markets.

Case Study Analysis: Research conducted in India has been broken down into one case study within each type of investment institution (i.e., Institutional & Retail).

- **Institutional:** analysing the disclosure of risk and performance of an investment fund by collecting materials from mutual fund and professional/financial literature regarding how professional investment managers are assessing risks and managing asset allocations and performance.
- **Retail:** "FinTech Platforms" looked at how FinTech platforms have developed an online investment/financial market through digital resources (i.e., websites, blogs, e-mails) to provide performance feedback to their users.

The two case studies were chosen based on the accessibility of the information and how well they represented individual investor types. The combination of two approaches connects finance theory with actual investor behaviour.

Results

Indian Mutual Funds

Background

The role of mutual funds in the Indian capital markets cannot be overstated. They not only offer investors the opportunity to invest in diversified assets but also help in the mobilization of savings in the economy. Mutual funds also make it easier for both individual and institutional investors to access a wide range of securities.

Moreover, The Indian mutual fund industry has undergone significant transformation in the past ten years. The industry's assets under management (AUM) surged from US\$ 108.8 billion (Rs. 9 Lakh Crore) in January 2014 to US\$ 635.3 billion (Rs. 52.7 lakh crore) in 2024, growing six-fold over ten years (AMFI, 2024). This growth can be primarily attributed to the growth of Systematic Investment Plans (SIPs), increased financial literacy, regulatory reforms by SEBI, and widespread digitization of investment platforms (AMFI, 2024; Baveja & Verma, 2024).

How Investment Decisions Are Made

Portfolio decisions rely on macroeconomic expectations, company fundamentals, and diversification strategies. Risk is an inherent component of all investment activity, and professional fund managers do not seek to eliminate it entirely but rather to manage it

systematically. Diversification is central to this process: by distributing holdings across different companies and sectors, managers reduce the potential impact of any single underperforming position on overall portfolio performance. Fund managers spread their investments across different asset classes (such as equities, fixed income, and cash equivalents), sectors (such as pharmaceuticals, FMCG, and information technology), and market capitalisation categories (small-cap, mid-cap, and large-cap). Each investment is selected and monitored rigorously against criteria including revenue growth, profit margins, debt levels, and management quality. At the same time, macroeconomic variables such as government policy and interest rates are also carefully evaluated.

Use of CAPM

Models such as CAPM are usually not taken into consideration by mutual funds in their investment decisions. Beta is sometimes shown in the fund fact sheets. However, it is of not much significance as it is not heavily relied upon in portfolio construction. Instead, the focus of fund managers is on diversification, company fundamentals and overall market conditions when deciding on where to invest. Research focused on the Indian stock market has raised questions on the practical application of CAPM, particularly in light of the fact that the relationship between beta and returns is often inconsistent (Anwar & Kumar, 2018).

Behavioral Biases in Investors

Background

Financial theories such as the Capital Asset Pricing Model (CAPM) are based on the idea that investors make rational decisions when making investment choices. However, when we look at the actual behaviour of investors in real market conditions, it becomes evident that investors' decisions are often influenced by emotions, psychological factors and market sentiments and are not purely based on logic and rational calculations. In the Indian context, the entry of a large number of individual retail investors in the stock markets especially during the COVID-19 pandemic, highlighted the growing influence of behavioural factors on investment decisions. Many of the new investors who entered the markets had low or limited financial knowledge, making them more vulnerable to behavioural and emotional factors (Baveja & Verma, 2024).

Key Behavioural Biases in Practice

One of the most notable features in the Indian stock markets has been the herd effect, wherein investors follow the actions of other investors or base their investment decisions on common market trends. This is especially true in the context of IPOs and bull markets, where stocks are often heavily oversubscribed by investors. In many cases investors base their investment decisions on market hype and social influence, rather than models such as the CAPM. Another major factor is overconfidence, wherein investors overestimate their own ability to predict and beat market movements. This often leads to excessive trading and ignoring possible risk. Most retail investors feel that they can outperform the market on a regular basis. However, this often leads to poor investment decisions leading to losses.

Loss aversion is another major behavioural bias. Here investors tend to hold on to losing investments in the hope that prices will eventually recover while selling profitable investments too early to lock in profit. Such behaviour does not conform to rational decision making, an assumption central to CAPM.

Implications for CAPM

All these behavioural biases show that investment decisions are more psychological than rational. These behavioural biases directly challenge the assumptions of CAPM which assumes that investors make decisions based on calculated returns and systematic risk(beta). However, in reality investors tend to be highly influenced by market sentiment, emotions and social trends. Instead of relying only on beta to estimate risk, investors rely on market sentiments, trends, and what others are doing. Hence, stock prices fluctuate, which cannot be explained by systematic risk alone. Thus, CAPM is not applicable in such cases.

In addition, behavioural biases create market inefficiencies, which is against the assumptions of CAPM. Hence, risk and returns are unstable and inconsistent.

FinTech Platforms in India

Background

India has witnessed a boom in digital investment platforms like Groww, Zerodha and Upstox. These platforms have made investing easier by lowering barriers to entry and offering easy access to a variety of investment instruments like stocks, ETFs, mutual funds, etc. through mobile applications. During the COVID-19 pandemic, investing through digital platforms became increasingly popular and brought millions of new investors into the market (AMFI & Crisil, 2024). As a result, FinTech platforms have become a very influential channel through which people invest in India. Other platforms such as Kuvera and Pocketful offer similar goal-based investing tools, while analytics platforms like Trendlyne provide data that retail investors use to track fund and stock performance (Kuvera.in, n.d.; Pocketful, n.d.; Trendlyne, n.d.).

How investment decisions are made

Rather than relying on complex mathematical models of traditional finance theories, FinTech platforms are built around investor suitability and simplified decision-making. FinTech firms use risk assessment questionnaires to determine whether the investor is conservative, moderate or aggressive in his tolerance for risk. Based on the responses, they recommend diversified mutual funds, SIPs, ETFs, or model portfolios.

These platforms focus on investor suitability by using risk profiling, diversification, and goal-based planning. Rather than expecting investors to understand complex technical financial concepts such as expected returns and Beta, these platforms simplify the process by using easy to understand risk profiles. They also provide educational materials that guide users about investing and help them make suitable and practical financial decisions (SEBI, n.d.; AMFI, 2025). These platforms place emphasis on investor education because many retail investors do not have the technical knowledge needed to use complex financial models (SEBI, n.d.).

Implications for CAPM

FinTech platforms like Zerodha Coin and Paytm Money do not recommend investing based on the CAPM theory. Instead, their recommendations are based on risk profiles, diversification, financial goals and how long an investor plans to stay invested. The FinTech platforms cater to individuals who may not possess advanced knowledge of investment theories and therefore rely on simplified risk categories and goal based approaches.

This approach diverges markedly from CAPM, which assumes that investors evaluate securities by comparing expected returns to systematic risk as measured by beta. According to this model, stocks which have higher beta value should provide higher expected returns to compensate for the additional risk involved. CAPM assumes that investors base their decisions based on this risk return relationship. However, in fintech platforms, beta-based asset pricing is irrelevant. Instead, risk profiling and goal-based investing are the norms. Investment decisions are often shaped by personal circumstances and investor preferences rather than a single risk-return measure.

Furthermore, existing research has shown that many factors other than beta can affect the returns given by stocks. suggesting that CAPM alone cannot explain all investment decisions (Fama & French, 1992; Jegadeesh & Titman, 1993). The growing popularity of FinTech platforms reflects this shift toward broader and more practical approaches to investing. The growing popularity of FinTech platforms is reflective of the fact that modern investors often prefer simple, goal-based investment approaches rather than relying on complex, academic models like CAPM.

Discussion

Table 2 synthesizes how each of these three stakeholder groups operates in practice relative to CAPM's core assumptions (SEBI, n.d.-a; AMFI, 2024).

Table 2. Key Stakeholders in Real-World Investing vs CAPM Users

Stakeholder	CAPM Usage	Real-World Practice
Retail Investors	Minimal	Goal-based investing, SIPs
Mutual Funds	Descriptive beta reporting	Asset Allocation, Macro-analysis
Wealth Managers	Rare CAPM Usage	Risk profiling, diversification
FinTech Platforms	Not used	Algorithms and questionnaires

Note-. Author's synthesis of stakeholder roles in Indian investing, based on regulatory and industry sources (SEBI, n.d.-a; AMFI, 2024; Sharpe, 1964).

Why Asset Allocation Is Preferred Over CAPM

Most investment companies in India such as mutual funds, wealth management companies and online advisory platforms use asset allocation when designing investment portfolios for their customers. This is because asset allocation spreads investments across a variety of asset classes—stocks, bonds, gold and cash based on a person's goals and how much risk they're willing to take, a practice that has grown alongside the rapid expansion of the Indian mutual fund industry (AMFI, 2024). It does not attempt to forecast the performance of individual securities.

CAPM operates on a fundamentally different basis, estimating returns through beta and the market risk premium. These estimates remain valid only insofar as the model's underlying assumptions hold. In a market such as India, where prices can shift rapidly and risk premiums are subject to structural variation, those assumptions frequently break down. As a result, the model is less reliable for investment decisions. Asset allocation is regarded as a more practical and flexible strategy for long-term, goal-based investing than CAPM's expected-return formula (Statman, 2014). Asset allocation mitigates much of this uncertainty by emphasising diversification rather than attempting to forecast market outcomes, which has contributed to its widespread adoption across the industry.

Why Risk Profiling Is Preferred Over CAPM

Risk profiling has become a standard component of investment advisory practice in India. Prior to making product recommendations, advisers are required to assess a client's financial circumstances, including income, expenditure, investment objectives, and risk tolerance—in accordance with regulatory guidance emphasising suitability and investor protection (SEBI, n.d.-a). This information is then used to assign investors to risk categories that inform subsequent advisory decisions.

CAPM does not adequately account for individual investor heterogeneity. It assumes that investors are rational and homogeneous, differing only in their tolerance for market risk. While this assumption is theoretically tractable, it is difficult to sustain in practice. A young first-time investor and an experienced high-net-worth investor might be facing very different financial situations even if they invest in the same market. Risk profiling attempts to capture those differences, which explains why practitioners continue to favour it over CAPM, and why investor education initiatives consistently emphasise risk-based rather than formula-based decision-making (AMFI, 2025)

Why CAPM Remains Mostly a Classroom Concept

Even though CAPM has its limitations it still plays a role in teaching finance. It teaches students about the fact that expected returns come with higher levels of systematic risk (Sharpe, 1964). The SML provides a way to visualize this relationship which makes the model a useful teaching tool.

Difficulties emerge, however, when CAPM is applied directly to investment decisions. Beta values shift over time, interest rates respond to monetary policy, and the market portfolio itself remains a theoretical construct, limitations that empirical studies of the Indian market have repeatedly documented (Panwar, 2016; Shrivastav, 2017). For these reasons, many practitioners favour approaches that can be more readily updated as market conditions evolve. Asset allocation and goal-based investing offer greater flexibility while still enabling effective risk management. Accordingly, although CAPM retains a place in finance education, its role in day-to-day investment practice is considerably more limited.

Market and Institutional Factors in India

Some characteristics of India's markets make CAPM harder to apply. The market is more volatile than many developed economies and liquidity is concentrated in companies (Estrada, 2002). Stock returns don't always follow a distribution as assumed by the model, and CAPM's predictive power is weaker in markets that are not fully integrated with global financial systems (Harvey, 1995). Furthermore, retail participation has increased substantially in recent years, generating stronger sentiment-driven price movements that beta alone cannot adequately explain (Baveja & Verma, 2024).

Regulation also reinforces this trend. SEBI, India's Securities and Exchange Board, places emphasis on investor protection and requires advisors to recommend products that are suitable for each client (SEBI, n.d.-a; SEBI, n.d.-b). In practice, this regulatory orientation encourages firms to employ risk profiling and asset allocation in preference to mathematical pricing models, as the former are more readily explainable to clients, easier to audit, and more scalable across a broad client base. These approaches over time have become the industry standard.

Implications for Finance Education and Practice

Our findings have important implications for finance education in India. CAPM may still be worth teaching, as it provides a useful foundation for understanding how risk and return are related (Sharpe, 1964; Fama & French, 2004). However, practitioners consistently find that the model carries significant limitations and is rarely employed in isolation in real-world settings (Rabha & Singh, 2022; Asthana et al., 2024).

Finance courses should also teach the tools practitioners use. Graduates entering the investment industry are far more likely to encounter risk profiling frameworks, asset allocation strategies, and regulatory compliance requirements than CAPM-based portfolio construction. Incorporating such methods into finance curricula could help narrow the gap between academic theory and professional practice, without diminishing the conceptual value of foundational models.

Limitations and Future Research

The information above includes the use of secondary resources including research literature, regulatory frameworks, and sector literature (AMFI, 2024; SEBI, n.d.-a; SEBI, n.d.-b). This

approach is well suited to identifying trends and offering explanatory frameworks for the limited adoption of CAPM in India, though it does not permit causal inferences to be drawn.

The findings from this research are particular to the case of India due to the unique market characteristics, laws and regulations, and investors behavior in India. Consequently, the findings may not be directly transferable to other market contexts. The study is further limited in its focus on retail investment behaviour and does not address how institutional investors or foreign portfolio managers engage with CAPM.

Conclusion

This paper examined why the Capital Asset Pricing Model remains underutilized by investors in India, despite its centrality to finance education (Sharpe, 1964). The evidence gathered from the case studies, the broader literature, and the Tata Motors analysis converges on a consistent conclusion: CAPM continues to serve a valuable pedagogical function but offers limited practical utility for real-world investment decision-making (Rabha & Singh, 2022; Asthana et al., 2024).

The study on mutual funds found that although beta is occasionally referenced in fund fact sheets, investment decisions are principally guided by portfolio diversification, company fundamentals, and prevailing macroeconomic conditions, rather than by CAPM's expected-return formula (AMFI, 2024; Anwar & Kumar, 2018).

The behavioral case study found that heuristics such as herding, overconfidence, and loss aversion play a more prominent role in shaping investment choices than CAPM's assumption of rational, risk-based decision-making (Statman, 2014; Baveja & Verma, 2024).

The FinTech case study found that platforms such as Zerodha and Groww rely on tools that assess investors' risk tolerance and financial goals rather than CAPM-based valuation, reflecting the greater accessibility of these tools for retail investors (AMFI & Crisil, 2024).

The Tata Motors analysis further illustrated how CAPM-predicted returns can diverge from actual returns in practice, with the model predicting a return of approximately 14% against an actual return of approximately 9%.

Taken together, these findings suggest that the divergence between CAPM theory and investor behavior does not stem from mere preference. Rather, it reflects structural factors such as the volatility characteristic of emerging markets (Estrada, 2002; Harvey, 1995), the heuristic-driven decision-making of retail investors (Baveja & Verma, 2024), and a regulatory environment that prioritizes suitability over precise quantitative modeling (SEBI, n.d.-a; SEBI, n.d.-b). This does not render CAPM irrelevant to understanding the relationship between risk and return; rather, it suggests that finance educators should distinguish between CAPM as a conceptual framework and tools such as asset allocation and risk profiling as the practical instruments investors actually rely upon.

Ultimately, CAPM retains value within Indian finance education for the conceptual understanding it provides, even among those who may never apply it directly to investment decisions.

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