

INVESTOR CHARACTERISTICS, ASSET ALLOCATION AND PORTFOLIO OUTCOMES: A CATEGORICAL ASSOCIATION ANALYSIS

Dr. Jyotsna Sharma

Assistant Professor, School of Business Management and Commerce, Jagat Guru Nanak Dev
Punjab State Open University, Patiala.

Dr. Rajni

Assistant Professor of Commerce, Shaheed Udham Singh Government College, Matak Majri,
Karnal, Haryana

Dr. Sarabjeet Kaur

S.K Academic and Research centre Mandi Gobindgarh, Punjab

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Abstract

This study examines the demographic and investment-related characteristics of individual investors and their broad correspondence with prevailing asset allocation patterns and portfolio outcomes. Whereas most empirical tests of the allocation–outcome relationship treat the investor as a homogeneous unit, this paper foregrounds the investor's profile age, gender, occupation, monthly household income, and investment experience, as the starting point for understanding how individual investors are distributed across allocation categories and portfolio outcomes. Using data drawn from a sample of 240 individual investors, the study presents a detailed descriptive and categorical profile across seven dimensions: age, gender, occupation, income, investment experience, asset allocation pattern, and portfolio price movement. Asset allocation is, by design, evenly distributed across four categories, while portfolio outcomes are concentrated in the 'Stable' category, followed by 'Increased' and 'Decreased'. The paper concludes by identifying respondent-level, cross-tabulated data collection as a priority for future inferential research linking investor profile directly to allocation behaviour and portfolio outcomes.

Keywords: *Investor characteristics, Investor profile, Asset allocation, Portfolio outcomes, Investment experience, Categorical analysis*

1. Introduction

Individual investors are frequently studied through the lens of a single relationship for instance, the association between a chosen allocation strategy and the resulting portfolio outcome. While comparatively less attention is directed to the broader profile of the investor making that allocation choice in the first place. Yet a substantial body of research suggests that demographic and financial characteristics, including age, income, occupation, and prior investment experience, shape both

the way investors approach asset allocation and the risk they are willing and able to bear (Chavali & Mohanraj, 2016; Lewellen, Lease, & Schlarbaum, 1977). Understanding the investor as a multidimensional profile, rather than a single categorical input, is therefore a necessary complement to any analysis of the allocation–outcome relationship.

This paper adopts that broader view. Rather than treating asset allocation pattern as an isolated categorical predictor of portfolio outcome, it places the investor's demographic and investment profile at the centre of the analysis, examining how individual investors in the sample are distributed across age groups, gender, occupation, income brackets, and investment experience, alongside their asset allocation pattern and observed portfolio outcome. The objective is not to test a single statistical hypothesis in isolation, but to build an integrated, descriptive understanding of who these investors are, how they are positioned in terms of allocation behaviour, and how portfolio outcomes are distributed across the sample as a whole — a foundation on which more targeted inferential work, using respondent-level cross-tabulated data, can subsequently be built.

2. Literature Review

2.1 Investor Characteristics and Investment Behaviour

A well-established stream of research links demographic characteristics to investment behaviour. Lewellen, Lease, and Schlarbaum (1977) found that age, sex, and income systematically differentiate investment strategy and portfolio composition among individual investors, with younger and higher-income investors typically exhibiting a greater willingness to hold higher-risk assets. More recent work by Chavali and Mohanraj (2016) similarly finds that demographic variables, including age and income, are associated with investors' risk tolerance and, in turn, with their investment decisions. Occupation and income are frequently treated as proxies for financial capacity and job security, both of which plausibly influence an investor's willingness to commit capital to higher-volatility asset classes such as equities.

2.2 Investment Experience and Portfolio Choice

Investment experience is also widely treated as a determinant of investment behaviour. Investors with greater accumulated experience are generally understood to be more familiar with market fluctuations and portfolio-construction principles, which may influence both their allocation choices and their interpretation of portfolio outcomes. Bodie, Kane, and Marcus (2014) and Chandra (2017) discuss investment experience alongside other investor characteristics as part of a broader profile that shapes portfolio decision-making, distinct from the purely theoretical risk-return calculus of Markowitz (1952) and Sharpe (1964).

2.3 Behavioural Perspectives on Investor Profile

The behavioural finance literature adds a further dimension to the relationship between investor characteristics and allocation behaviour. Kahneman and Tversky's (1979) Prospect Theory demonstrates that individuals' responses to risk are shaped by psychological factors that are not

uniformly distributed across demographic groups, while Barber and Odean (2001) find that gender is systematically associated with differences in trading behaviour and portfolio composition, with male investors, on average, exhibiting greater overconfidence and more active trading than female investors. Statman (2004) further argues that investor portfolios often reflect psychological and social considerations specific to the investor's own circumstances, rather than a uniform application of formal portfolio theory. These findings collectively support the proposition that the investor's own characteristics are a legitimate and necessary unit of analysis, not merely a background variable to be controlled for.

2.4 Asset Allocation and Portfolio Outcomes

At the level of asset allocation itself, the foundational contribution of Brinson, Hood, and Beebower (1986) established that the mix of asset classes within a portfolio is closely linked to portfolio performance outcomes, a finding that has motivated substantial subsequent research into the determinants of allocation choice. Understanding who selects each allocation pattern — in terms of demographic and experience-based characteristics is a logical extension of this literature, connecting the investor-characteristics literature reviewed above with the allocation-outcome literature that underlies much of institutional and behavioural portfolio research.

Taken together, this literature suggests that investor characteristics, investment experience, asset allocation behaviour, and portfolio outcomes are conceptually interconnected, but that empirical work has more often examined pairs of these elements in isolation — for example, demographic characteristics and risk tolerance (Chavali & Mohanraj, 2016), or allocation pattern and portfolio performance (Brinson, Hood, & Beebower, 1986) — than the fuller chain running from investor profile through investment behaviour to portfolio outcome. This paper addresses that integration directly, using the descriptive and categorical data available for the present sample.

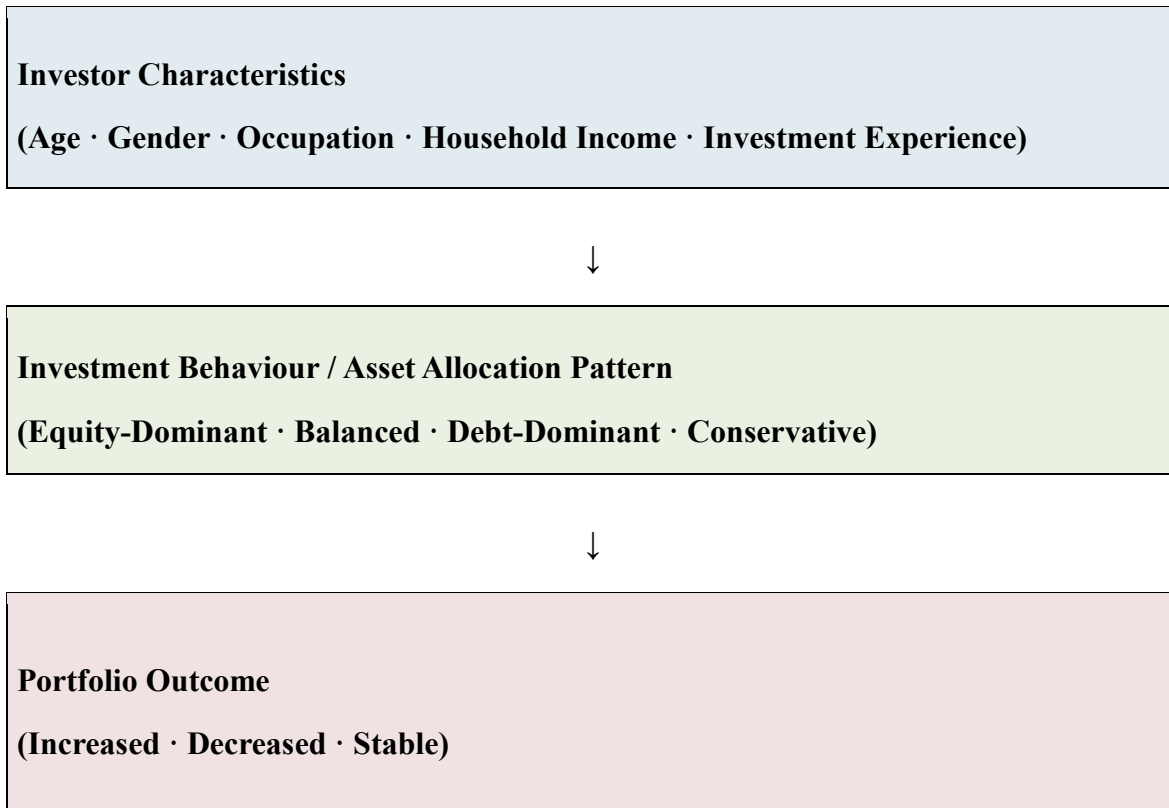
3. Research Gap

Existing research has examined demographic determinants of investment behaviour (Lewellen, Lease, & Schlarbaum, 1977; Chavali & Mohanraj, 2016), the influence of experience and behavioural factors on portfolio decisions (Kahneman & Tversky, 1979; Barber & Odean, 2001), and the relationship between asset allocation pattern and portfolio performance (Brinson, Hood, & Beebower, 1986). However, these strands of literature have rarely been integrated within a single study that profiles individual investors across the full range of demographic and investment-experience characteristics alongside their allocation behaviour and portfolio outcomes. In particular, there is limited research that presents a comprehensive, integrated categorical profile of individual investors — spanning age, gender, occupation, income, and investment experience — situated explicitly alongside their asset allocation pattern and observed portfolio outcome, as a basis for understanding the investor population as a whole rather than testing a single bivariate

relationship. This study addresses that gap by developing an integrated descriptive and categorical profile of 240 individual investors across seven dimensions of investor characteristics, investment behaviour, and portfolio outcome, and by proposing a conceptual framework that connects these dimensions for future inferential research.

4. Conceptual Framework

The conceptual framework guiding this study positions investor characteristics as the starting point of a broader chain leading to investment behaviour and, ultimately, portfolio outcomes, as depicted below.



This framework is conceptual rather than causal. It reflects the sequence in which these categories are conventionally understood to relate to one another in the investment-decision literature reviewed in second section investor characteristics inform investment behaviour, which in turn is associated with portfolio outcomes but it does not, by itself, establish a causal or statistically inferential relationship between any two levels of the framework. The present study uses this framework to organise its descriptive and categorical analysis; establishing statistically tested directional or causal relationships between the three levels of the framework would require respondent-level, cross-tabulated data linking each investor's characteristics directly to their own allocation choice and portfolio outcome.

5. Research Questions

What are the demographic characteristics (age, gender, occupation, monthly household income) of individual investors in the sample?

What is the investment experience profile of individual investors in the sample?

What asset allocation patterns are prevalent among individual investors in the sample?

How are portfolio outcomes distributed among individual investors in the sample?

What does the integrated profile of investor characteristics, asset allocation behaviour, and portfolio outcomes suggest about the sample of individual investors as a whole?

6. Objectives of the Study

- To analyse the investment experience and financial characteristics of individual investors.
- To identify the prevailing asset allocation patterns among individual investors.
- To examine the distribution of portfolio outcomes among individual investors..

7. Research Methodology

This study adopts a descriptive research design. The analysis draws on categorical marginal-frequency data for seven variables describing a sample of individual investors: age, gender, occupation, monthly household income, investment experience, asset allocation pattern, and portfolio price movement. The study is based on the same sample of 240 individual investors used in the companion study of asset allocation pattern and portfolio price movement, with asset allocation classified into four categories (Equity-Dominant, Balanced, Debt-Dominant, Conservative) of 60 investors each, and portfolio price movement classified into three categories (Increased, Decreased, Stable). Investors were sampled in equal numbers across the four asset allocation categories by design. Data on investor demographic characteristics (age, gender, occupation, monthly household income), investment experience, asset allocation category, and portfolio price movement were collected at the level of the individual investor. The available dataset provides independent marginal distributions for each variable rather than a joint distribution linking investor characteristics to allocation category and portfolio outcome at the respondent level, this study is explicitly descriptive and categorical in nature with respect to the relationship between investor characteristics and allocation/outcome variables.

Variables and Operational Definitions

Age: categorical variable with five levels, from 'Below 25 years' to 'Above 55 years'.

Gender: categorical variable with three levels — Male, Female, and Prefer not to say.

Occupation: categorical variable with six levels, spanning salaried, self-employed, professional, student, and retired categories.

Monthly Household Income: categorical variable with four income brackets, from 'Below ₹25,000' to 'Above ₹1,00,000'.

Investment Experience: categorical variable with four levels, from 'Less than 1 year' to 'More than 7 years'.

Asset Allocation Pattern: categorical variable with four levels (Equity-Dominant, Balanced, Debt-Dominant, Conservative), as operationally defined in the companion study.

Portfolio Outcome: categorical variable with three levels (Increased, Decreased, Stable), reflecting twelve-month portfolio price movement.

Given the marginal (non-cross-tabulated) nature of the available data, this study relies primarily on descriptive statistical tools such as frequency counts, percentage distributions, and categorical profiling across the seven variables described above. Where the source literature reports formally tested statistical results for the allocation–outcome relationship.

8.1 Age Distribution

Table 1: Age Distribution of Respondents

Category	Frequency	Percentage
Below 25 years	36	15.0%
25–35 years	84	35.0%
36–45 years	60	25.0%
46–55 years	36	15.0%
Above 55 years	24	10.0%
Total	240	100.0%

Source: Primary Data

The sample is concentrated in the 25–35 year age band, which accounts for over a third of respondents (35.0 percent), followed by the 36–45 year band (25.0 percent). Together, investors below 45 years of age constitute 75.0 percent of the sample. This concentration in early- and mid-career age groups is consistent with the behavioural finance literature suggesting that younger investors are more likely to be active participants in market-linked asset classes (Lewellen, Lease, & Schlarbaum, 1977), and provides useful context for interpreting the asset allocation and portfolio outcome distributions presented later in this section.

8.2 Gender Distribution

Table 2: Gender Distribution of Respondents

Category	Frequency	Percentage
Male	144	60.0%
Female	90	37.5%
Prefer not to say	6	2.5%
Total	240	100.0%

Source: Primary Data

The sample is predominantly male (60.0 percent), with female respondents accounting for 37.5 percent and a small proportion (2.5 percent) preferring not to disclose gender. This skew is broadly consistent with survey-based investor research more generally, in which male respondents are frequently over-represented among self-identified active investors (Barber & Odean, 2001), and should be borne in mind when interpreting the asset allocation and portfolio outcome distributions, given the gender differences in risk-taking and trading behaviour documented in the behavioural finance literature.

8.3 Occupation Profile

Table 3: Occupation Profile of Respondents

Category	Frequency	Percentage
Salaried – Private Sector	84	35.0%
Salaried – Government/Public Sector	36	15.0%
Self-employed / Business	48	20.0%
Professional	36	15.0%
Student	19	7.9%
Retired	17	7.1%
Total	240	100.0%

Source: Primary Data

Private-sector salaried employees constitute the largest occupational group (35.0 percent), followed by self-employed/business respondents (20.0 percent) and government/public-sector employees and professionals (15.0 percent each). Students and retired individuals together account for a smaller share of the sample (15.0 percent combined). The predominance of salaried, private-sector respondents suggests a sample weighted toward investors with relatively regular income streams, a characteristic that the literature associates with a greater capacity to bear market-linked investment risk (Chavali & Mohanraj, 2016).

8.4 Monthly Household Income Distribution

Table 4: Monthly Household Income Distribution

Category	Frequency	Percentage
Below ₹25,000	36	15.0%
₹25,000–₹50,000	72	30.0%
₹50,001–₹1,00,000	84	35.0%
Above ₹1,00,000	48	20.0%
Total	240	100.0%

Source: Primary Data

The largest income bracket is ₹50,001–₹1,00,000 (35.0 percent), followed by ₹25,000–₹50,000 (30.0 percent). Together, middle-income respondents (₹25,000–₹1,00,000) account for 65.0 percent of the sample, with smaller proportions at the lower (15.0 percent) and upper (20.0 percent) ends of the income distribution. This concentration in middle-income brackets suggests a sample dominated by financially stable, though not necessarily high-net-worth, individual investors.

8.5 Investment Experience Distribution

Table 5: Investment Experience of Respondents

Category	Frequency	Percentage
Less than 1 year	36	15.0%
1–3 years	72	30.0%
4–7 years	84	35.0%
More than 7 years	48	20.0%

Category	Frequency	Percentage
Total	240	100.0%

Source: Primary Data

The largest group of respondents (35.0 percent) reports 4–7 years of investment experience, followed by 1–3 years (30.0 percent). Investors with more than seven years of experience account for 20.0 percent of the sample, while relatively new investors (less than one year) account for 15.0 percent. This distribution indicates a sample weighted toward moderately experienced investors, which is relevant to interpreting allocation behaviour, given that investment experience is frequently associated in the literature with more deliberate, diversified allocation choices (Bodie, Kane, & Marcus, 2014).

8.6 Asset Allocation Pattern

Table 6: Distribution of Respondents by Asset Allocation Pattern

Category	Frequency	Percentage
Equity-Dominant	60	25.0%
Balanced	60	25.0%
Debt-Dominant	60	25.0%
Conservative	60	25.0%
Total	240	100.0%

Source: Primary Data

By design, the sample is evenly distributed across the four asset allocation categories (25.0 percent each), a structure adopted to support a clean categorical comparison across allocation groups in the companion analysis of allocation and price movement. Considered alongside the demographic profile above, this equal-quota design means that the age, gender, occupation, income, and experience profiles reported in Tables 1 through 5 describe the sample as a whole, rather than being separately available for each allocation category; a respondent-level dataset would be required to establish how the demographic profile varies across the four allocation groups specifically.

8.7 Portfolio Outcome Distribution

Table 7: Distribution of Respondents by Portfolio Outcome

Category	Frequency	Percentage
Increased	80	33.3%
Decreased	45	18.8%
Stable	115	47.9%
Total	240	100.0%

Source: Primary Data

Portfolio outcomes are concentrated in the 'Stable' category (47.9 percent), followed by 'Increased' (33.3 percent) and 'Decreased' (18.8 percent). At the aggregate sample level, this indicates that a plurality of investors experienced limited portfolio-value change over the observation period, with a larger share reporting gains than losses. As with the allocation distribution above, this outcome distribution describes the sample in aggregate; the companion study on asset allocation and price movement presents the formally tested association between allocation category and outcome category specifically.

8.8 Asset Allocation Pattern by Portfolio Outcome

For descriptive completeness, Figure 1 reproduces the cross-tabulated pattern between asset allocation category and portfolio outcome established and statistically tested in the companion paper (asset allocation pattern and share/portfolio price movement), where this relationship was formally examined using the Pearson chi-square test of independence. It is presented here as contextual background linking the allocation and outcome distributions discussed above, rather than as a new statistical result derived in this paper.

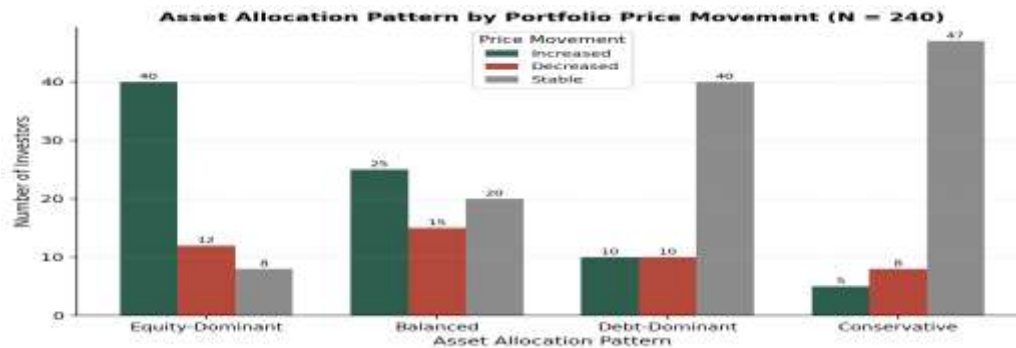


Figure 1. Asset Allocation Pattern by Portfolio Outcome (N = 240)

10. Findings and Discussion

The demographic profile of this investor sample is moderately young, predominantly male, salaried, and middle-income is broadly consistent with the characteristics that the behavioural and investment-decision literature commonly associates with active participation in market-linked asset classes. Lewellen, Lease, and Schlarbaum (1977) found that age and income systematically differentiate investment strategy, and the concentration of this sample in early- and mid-career age bands and middle-income brackets is consistent with a population positioned to take on measured investment risk. The male-skewed composition of the sample also aligns with Barber and Odean's (2001) finding that men are more likely than women to be active, self-directed investors, a pattern with implications for how allocation and risk-taking behaviour might differ across the sample if respondent-level data were available to test it directly. The major findings are as below.

- The investor sample is moderately young, with 75.0 percent of respondents below 45 years of age and the largest single band being 25–35 years (35.0 percent).
- The sample is predominantly male (60.0 percent), with female investors comprising just over a third of respondents (37.5 percent).
- Private-sector salaried employment is the dominant occupational category (35.0 percent), suggesting a sample weighted toward investors with relatively stable income.
- Middle-income brackets (₹25,000–₹1,00,000 per month) account for 65.0 percent of the sample, indicating a broadly middle-income investor base.
- A plurality of investors (35.0 percent) report 4–7 years of investment experience, suggesting a moderately experienced sample overall.
- Asset allocation is evenly distributed across four categories by design, while portfolio outcomes are concentrated in the 'Stable' category (47.9 percent), followed by 'Increased' (33.3 percent) and 'Decreased' (18.8 percent).

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The moderate concentration of investment experience in the 4–7-year range suggests a sample of investors who are neither market novices nor highly seasoned, a group that Bodie, Kane, and Marcus (2014) associate with an evolving, rather than fully settled, approach to portfolio construction. Read alongside the allocation and outcome distributions, this suggests a sample of investors who are broadly positioned across the risk spectrum (as reflected in the equal split across allocation categories) and predominantly experiencing stable-to-positive portfolio outcomes over the observation period. This pattern is directionally consistent with the theoretical expectation, grounded in Markowitz (1952) and Sharpe (1964), that a diversified spread of allocation choices across a population of investors with heterogeneous income and experience profiles should correspond to a heterogeneous, but not extreme, distribution of portfolio outcomes.

At the same time, the descriptive nature of the available data places a clear limit on what can be concluded. Without respondent-level data linking, for example, younger or less experienced investors specifically to particular allocation categories or outcomes, it is not possible to state whether the demographic patterns observed in Tables 1 through 5 are systematically associated with the allocation and outcome patterns in Tables 6 and 7, or whether they are simply independent characteristics of the same sample. This distinction is central to the conceptual framework. The framework describes a plausible conceptual sequence supported by the wider literature, but the present dataset can describe each level of that sequence only in aggregate, not test the connections between levels.

11. Practical Implications

For financial advisors, the demographic concentration of this sample in the 25–45 age range and middle-income brackets suggests that investor-education and advisory materials targeted at this profile are likely to reach a meaningful share of the broader investor base from which this sample is drawn.

The male-skewed composition of the sample, consistent with the wider behavioural finance literature on gender and investment participation, suggests that efforts to broaden female participation in market-linked investment may be a relevant consideration for financial institutions and policymakers, though this study cannot speak to the drivers of that gap directly. The concentration of investors in the 4–7-year experience suggests a population that may particularly benefit from intermediate-level financial education, positioned between introductory investor education and advanced portfolio-management guidance.

For researchers and institutions designing future data-collection instruments, the findings underscore the practical value of capturing respondent-level, cross-tabulated data linking

demographic characteristics directly to allocation choices and outcomes, which would allow the conceptual framework proposed in Section 4 to be tested formally.

12. Limitations

The available data consists of independent marginal distributions for each variable rather than a respondent-level, cross-tabulated data set. Consequently, no statistical test of association between investor characteristics and either asset allocation pattern or portfolio outcome could be conducted, and none is reported.

The conceptual framework presented in is descriptive and organisational rather than statistically tested. It should be taken as an formally tested associative sequence between investor characteristics, investment behaviour, and portfolio outcomes.

The data reflect a single twelve-month observation window for portfolio outcomes, so the findings describe the sample at one point in time rather than a relationship confirmed to hold across multiple market cycles.

13. Conclusion

This study set out to examine individual investors as a multidimensional profile spanning age, gender, occupation, income, and investment experience situated alongside their asset allocation pattern and portfolio outcome, rather than treating allocation and outcome as an isolated bivariate relationship. Drawing on a sample of 240 individual investors, the study finds a demographic profile that is moderately young, predominantly male, salaried, and middle-income, with a plurality of moderately experienced investors, an even distribution across four asset allocation categories, and portfolio outcomes concentrated in the 'Stable' category. These findings are interpreted through a conceptual framework linking investor characteristics, investment behaviour, and portfolio outcomes, and are read alongside the wider literature on demographic and behavioural determinants of investment decision-making. Consistent with the descriptive, marginal nature of the available data, the study stops short of testing formal statistical associations between investor characteristics and allocation or outcome categories, and instead identifies the collection of respondent-level, cross-tabulated data as the central priority for future research seeking to test the proposed framework directly. In doing so, the paper offers a complementary, investor-centred perspective to the companion analysis of the allocation–outcome relationship, broadening the discussion from a single statistical test to an integrated understanding of who these investors are and how their characteristics correspond to the investment landscape observed in the data.

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