



Factors Effecting Fund Size in the Pakistani Asset Management Sector

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ARTICLE INFO

Keywords:

Asset Management, Fund Size, Risk-Adjusted Return, Management Structure, Expense Ratio, Net Asset Value, Assets Under Management, Pakistan.

ABSTRACT

In recent years, the Pakistani asset management sector has experienced remarkable growth, necessitating an examination of factors impacting fund size. This study investigates the influence of risk-adjusted return (RAR), management structure (MS), expense ratio (EXP), and net asset value (NAV) on assets under management (AUM) within Pakistan. Utilizing five years of data from six prominent Asset Management Companies, our analysis reveals significant relationships. We find that a robust management structure inversely correlates with AUM, underscoring the importance of effective leadership. Moreover, lower expense ratios are associated with higher AUM growth, emphasizing the critical role of cost efficiency in attracting investor capital. While higher NAV values marginally correlate with larger AUM, superior risk-adjusted returns significantly drive increased investor interest and capital inflows. Leveraging E-Views software, our findings offer actionable insights for asset managers, investors, and regulators, guiding strategic decisions and enhancing industry performance.

1. Introduction

The asset management sector in Pakistan has experienced remarkable growth in recent years, prompting a deeper investigation into the factors shaping fund size. This study explores the combined impact of risk-adjusted return (RAR), management structure (MS), and expense ratio (EXP) on assets under management (AUM) within the Pakistani asset management industry.

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Received: 21st March 2024

Received in revised form: 8th April 2024

Accepted: 16th April 2024

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The significance of risk-adjusted returns lies in meeting investor expectations for appealing returns while effectively managing risk (Khan et al., 2022). Additionally, the importance of robust management structures in nurturing fund growth and stability has been emphasized by Ahmed and Raza (2021), with Haider and Malik (2023) stressing the role of cost efficiency through lower expense ratios.

In the global landscape, extensive research has explored factors influencing fund size, including risk-adjusted return (RAR), management structure (MS), and expense ratio (EXP) (Chen et al., 2021; López et al., 2022; Ippolito, 1999; Del Guercio & Tkac, 2002). However, the Pakistani asset management industry lacks comprehensive studies examining the combined impact of these factors on assets under management (AUM). While isolated studies have delved into individual aspects like risk-adjusted performance (Khan et al., 2022), management structures (Ahmed & Raza, 2021), and expense ratios (Haider & Malik, 2023), there is a notable research gap in understanding their collective influence on AUM. This study aims to fill this void by investigating the relationship between RAR, MS, EXP, and AUM in Pakistan. Through quantitative analysis and advanced statistical models, the research seeks to provide valuable insights for asset managers, investors, and regulators, facilitating informed decision-making, optimized fund growth strategies, and enhanced industry performance and competitiveness.

This study aims to investigate the determinants of fund size in the Pakistani asset management sector through a comprehensive analysis of risk-adjusted return (RAR), management structure (MS), and expense ratio (EXP) on assets under management (AUM). The research objectives encompass understanding the impact of investment performance, governance frameworks, and cost efficiency on fund growth and stability. By addressing these objectives, the study seeks to provide valuable insights for asset managers, investors, and regulators in Pakistan. Practical implications include optimizing strategies for asset managers, aiding investors in making informed decisions, and informing regulatory frameworks to promote transparency and investor protection. Additionally, this research contributes to the academic understanding of fund size determinants, stimulating further discussion and research in the field. The scope of the study is limited to the Pakistani asset management sector, utilizing quantitative research methods to analyze historical data and provide actionable recommendations based on the findings.

The evolution of the global asset management industry is explored, emphasizing the pivotal role of risk-adjusted returns, management structures, and expense ratios in shaping fund size. Early studies in the 2000s highlighted the importance of risk-adjusted performance metrics in attracting investor capital (Sharpe, 2003). Subsequently, the impact of management structure on fund size gained prominence, with a focus on effective leadership and governance (Sirri and Tufano, 2002). Furthermore, research has examined the relationship between expense ratios and asset growth, emphasizing cost efficiency and competitive pricing (Ippolito, 1999; Del Guercio and Tkac, 2002).

In the Asian context, recent studies have underscored the significance of risk-adjusted returns and transparent management structures in driving fund growth (Wang et al., 2023; Lee et al., 2022). However, research specific to the Pakistani asset management industry remains limited.

This study aims to address this gap by investigating the unique dynamics of the Pakistani asset management sector. By exploring the interplay between RAR, MS, EXP, and AUM, the research aims to provide actionable insights for practitioners, investors, and regulators in Pakistan. These findings can inform asset managers in optimizing growth strategies, assist investors in making



informed decisions, and offer regulators insights to design policies promoting industry growth and stability.

Ultimately, this study contributes to the growing body of research on the Pakistani asset management sector, offering a comprehensive understanding of the determinants driving fund size within this specific context.

2. Literature review

The Pakistani asset management industry, valued at approximately 1.6 trillion Pakistani Rupees in mutual funds and 230 billion Pakistani Rupees in separately managed accounts as of June 30, 2023, has undergone significant growth and plays a crucial role in capital mobilization and allocation. Regulatory reforms led by the Securities and Exchange Commission of Pakistan (SECP), technological advancements, and a burgeoning middle class have contributed to this growth. However, challenges such as market volatility, regulatory compliance costs, and the need for improved product innovation and risk management practices persist. The theoretical background of this research focuses on the management structure, expense ratio, net asset value (NAV), and risk-adjusted return in the context of the Pakistani asset management industry. Agency theory emphasizes the importance of a sound management structure in aligning the interests of fund managers and investors, while cost efficiency theory highlights the significance of lower expense ratios in attracting assets. NAV, as a key indicator, reflects a mutual fund's size and performance, and risk-adjusted return measures a fund's success by considering the risk taken to achieve returns. Limited research has explored these factors in the Pakistani context, and this study aims to bridge the gap by providing insights into the relationships between management structure, expense ratio, NAV, risk-adjusted return, and the success of mutual funds in Pakistan. The findings aim to guide decision-making for asset managers, investors, and regulators, contributing to the industry's overall performance and understanding in Pakistan.

2.1 Assets Under Management (AUM)

Assets Under Management (AUM) is a key metric in the investment management industry, representing the total value of assets overseen by an investment firm or portfolio manager for clients (Black, 2020). AUM encompasses various financial assets, such as stocks, bonds, and cash, reflecting the scale and scope of an investment management firm's activities and its ability to attract and retain client assets (Bodie et al., 2018). It serves as a crucial indicator of an investment firm's success, reflecting the total assets entrusted by investors for generating returns (Elton et al., 2019). Larger AUM signifies investor confidence in the manager's competency and acts as a signal of trust. AUM also denotes the capital available for investment, influencing the firm's investment strategies and potential returns (Hull, 2016). Moreover, AUM provides insights into an investment manager's operations and revenue potential, with larger AUM indicating a broader client base and a capacity to offer a diverse range of investment products, contributing to fee revenue (Lhabitant, 2017). The size of AUM is significant not only for individual firms but also for the industry, serving as a performance benchmark and growth indicator (Reilly & Brown, 2018). High AUM figures enhance a firm's reputation, attract new clients, and may lead to economies of scale, potentially improving profitability. Understanding the dynamics and determinants of AUM is crucial for making informed decisions in growth strategies and delivering value to clients in the investment management industry.

2.2 Risk-Adjusted Return

Risk-adjusted return, a critical measure of investment performance introduced by Sharpe (1994), evaluates the efficiency of an investment strategy by considering the associated risk and providing a more accurate assessment of performance (Treynor, 1965; Jensen, 1968). This metric enables investor to



compare returns across different assets or portfolios while accounting for varying levels of risk (Litterman, 2003). Beyond assessing returns, it evaluates consistency over time, adjusting for performance variability (Fama & French, 1993). Furthermore, risk-adjusted return aids in evaluating excess returns relative to benchmarks, facilitating a comprehensive understanding of performance in relation to the undertaken risk (Black, 1993). It serves as a crucial tool for portfolio managers, guiding investment decisions by optimizing the balance between risk and return to maximize overall performance (Markowitz, 1952). Various metrics, such as the Sharpe ratio, Treynor ratio, Jensen's alpha, Sortino ratio, Information Ratio, and M^2 measure, offer nuanced perspectives on risk-adjusted return. For instance, the Sharpe ratio accounts for excess return relative to volatility, while the Treynor ratio considers systematic risk. Jensen's alpha focuses on the Capital Asset Pricing Model (CAPM), and the Sortino ratio emphasizes downside risk. The Information Ratio evaluates active management performance relative to a benchmark, and the M^2 measure compares investment return to a market index (Sortino & van der Meer, 1991; Modigliani & Modigliani, 1997). Understanding and incorporating risk-adjusted return metrics are essential for investors and portfolio managers, providing a comprehensive assessment of investment performance that considers the level of risk undertaken, thus guiding informed decision-making and optimization strategies.

2.3 Management Structure

Management structure is the foundational framework governing an organization's internal dynamics, encompassing roles, relationships, and decision-making processes (Miller, 2020). It delineates the hierarchical arrangement, divisions, and departments, providing the formalized structure for task distribution, responsibility assignment, and reporting lines (Robbins & Coulter, 2022). Decision-making processes, whether centralized or decentralized, are integral components of this structure (Hitt et al., 2020). This framework extends to the design of roles, job descriptions, and the allocation of tasks, shaping the formal and informal systems within an organization (Jones & George, 2021). Management structure's reach extends to defining relationships between management levels, fostering coordination across functional areas, and establishing communication channels (Wheelen et al., 2020; Ireland et al., 2019). Importantly, it contributes to shaping organizational culture, influencing power distribution, decision-making processes, employee motivation, and reward systems (Schein, 2017; Luthans & Doh, 2022). Moreover, it impacts the level of autonomy, centralization or decentralization, and the organization's adaptability to environmental changes (Robbins & Coulter, 2022; Mintzberg, 2019). In essence, an effective management structure is vital for achieving organizational objectives, fostering employee engagement, and navigating dynamic business environments. Recognizing and designing a structure that aligns with organizational goals is imperative for success.

2.4 Net Asset Value (NAV)

Net Asset Value (NAV) is a critical metric representing the per-share value of a mutual fund, determined by dividing the total value of the fund's assets by its outstanding shares (Fabozzi et al., 2021). Calculated daily, NAV serves as a snapshot of the fund's intrinsic worth, reflecting the market value of its assets while accounting for liabilities, expenses, and fees (Venezia et al., 2022). It is instrumental in assessing a fund's net worth, representing the value per share in a hypothetical liquidation scenario (Hirt & Block, 2021). Additionally, NAV is foundational in setting purchase and redemption prices, with investors buying at NAV plus charges and redeeming at NAV minus fees (Cohen & Klemkosky, 2022). Beyond its practical applications, NAV plays a pivotal role in evaluating mutual fund performance, enabling investors to monitor their investments and gauge the fund's profitability over time (Jones & O'Connor, 2020). Changes in NAV mirror the performance of underlying assets, providing insights into how the fund fares against benchmarks or peers (Ritter & Silber, 2019). NAV forms the basis for crucial fund metrics like total return, expense ratio, and yield (Fabozzi et al., 2021). Recent research by Cheng and Bao (2021) underscores NAV's role in offering



transparency and accountability to investors. Moreover, Hwang et al. (2022) emphasize NAV's value in assessing fund liquidity and marketability, particularly during periods of market volatility. In essence, NAV is a cornerstone in the evaluation of mutual fund performance, contributing to transparency and informed decision-making in the investment landscape.

2.5 Expense Ratio

Expense Ratio, also known as the management expense ratio (MER), is a critical metric representing the percentage of a mutual fund's total assets allocated to cover operating expenses (Bodie et al., 2020). It encompasses various components like management fees, administrative costs, marketing, distribution expenses, and other operational outlays (Reilly & Brown, 2021). The Expense Ratio is a key performance indicator as it directly influences the net returns earned by shareholders, with a lower ratio indicating higher retained returns for investors (Jones & O'Connor, 2022). This not only boosts investor confidence but also makes the fund more attractive, potentially leading to increased assets under management (Cohen & Klemkosky, 2022). Research by Ahmed and Raza (2021) underscores that funds with lower Expense Ratios experience higher growth rates and attract a larger investor base. Haider and Malik (2023) further demonstrate that a lower Expense Ratio enhances a fund's competitiveness by appealing to cost-conscious investors. The significance of Expense Ratio has grown in recent years due to regulatory reforms by the Securities and Exchange Commission (SEC), emphasizing transparency and comparability (Venezia et al., 2022). Additionally, technological advancements enable investors to efficiently assess Expense Ratios across various funds (Ritter & Silber, 2019). In essence, Expense Ratio analysis plays a crucial role in fund selection, performance evaluation, and investor decision-making. Recognizing the impact of Expense Ratio allows investors to make informed choices, aligning with regulatory standards and leveraging technology for efficient analysis.

2.6 Theoretical Background

Drawing upon foundational theories in portfolio and investment management, the proposed hypotheses regarding the impact of management structure, expense ratio, net asset value (NAV), and risk-adjusted return on assets under management (AUM) in the asset management industry are underpinned by well-established principles. Modern Portfolio Theory (MPT) underscores the importance of diversification and risk management in constructing portfolios, suggesting that investors seek optimal risk-return trade-offs (Markowitz, 1952). This aligns with the hypothesis that management structure significantly influences AUM, as effective governance mechanisms can mitigate agency costs and enhance investor trust (Jensen & Meckling, 1976). Furthermore, the Efficient Market Hypothesis (EMH) highlights the preference for cost-effective investment options in efficient markets, supporting the hypothesis that lower expense ratios attract more assets (Fama, 1970). Signaling theory complements the hypothesis regarding NAV's impact on AUM by suggesting that higher NAV values signal fund quality and growth potential, attracting investor capital (Spence, 1973). Similarly, the hypothesis regarding the significance of risk-adjusted return aligns with MPT, as investors seek attractive returns while managing investment risks (Markowitz, 1952). By incorporating these theories, the hypotheses provide a theoretical framework for understanding the dynamics driving AUM in the asset management industry, emphasizing the interplay between management practices, cost efficiency, performance metrics, and investor behavior.

2.7 Hypothesis Development

Recent research, exemplified by Ahmed and Raza (2021) and Lee et al. (2022), emphasizes the pivotal role of management structure in influencing Assets Under Management (AUM) in the asset management industry. These studies indicate that funds with robust governance structures and transparent management frameworks exhibit higher AUM growth rates. Regulatory guidelines, such as those implemented by the Securities and Exchange Commission (SEC) on board composition and



independence, further underscore the importance of effective management structures for investor protection. The impact of management structure on AUM is attributed to factors like instilling investor confidence through effective leadership, clear decision-making processes, and robust risk management practices. Advancements in technology enable investors to assess management structures more efficiently, contributing to informed investment decisions (Lai & Wang, 2019). Therefore, a hypothesis emerges:

H1: Management structure has a significant impact on assets under management (AUM).

Recent research strongly supports the hypothesis that the expense ratio significantly impacts Assets Under Management (AUM) in the asset management industry. Studies, including Ippolito (1999) and Del Guercio and Tkac (2002), reveal a clear relationship between lower expense ratios and larger asset inflows, indicating that cost efficiency is a crucial factor for investors in fund selection. The hypothesis is reinforced by the growing trend of investor cost-consciousness, with readily available information enabling investors to compare fund expenses. Lower expense ratios, leading to higher net returns, enhance a fund's attractiveness and potentially contribute to increased AUM. Regulatory changes, such as guidelines from the Securities and Exchange Commission (SEC) emphasizing transparency in expense ratio disclosures, further underscore the pivotal role of expense ratios in influencing AUM in the asset management industry.

H2: Expense Ratio has a significant impact on assets under management (AUM).

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H3: Net Asset Value (NAV) has a significant impact on assets under management (AUM).

Recent research strongly supports the hypothesis that the expense ratio significantly impacts Assets Under Management (AUM) in the asset management industry. Studies, including Ippolito (1999) and Del Guercio and Tkac (2002), reveal a clear relationship between lower expense ratios and larger asset inflows, indicating that cost efficiency is a crucial factor for investors in fund selection. The hypothesis is reinforced by the growing trend of investor cost-consciousness, with readily available information enabling investors to compare fund expenses. Lower expense ratios, leading to higher net returns, enhance a fund's attractiveness and potentially contribute to increased AUM. Regulatory changes, such as guidelines from the Securities and Exchange Commission (SEC) emphasizing transparency in expense ratio disclosures, further underscore the pivotal role of expense ratios in influencing AUM in the asset management industry.

H4: Risk-adjusted return has a significant impact on assets under management (AUM).

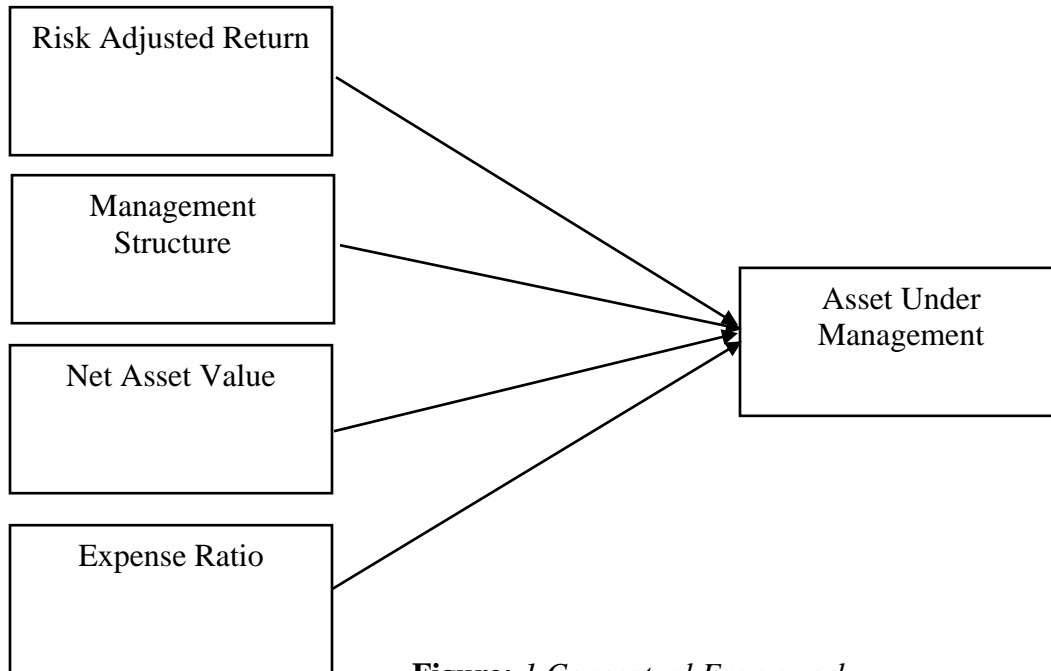


Figure: 1 Conceptual Framework

This study is incorporated with five variables which are further divided into four independent variables & one dependent variables. The independent variable includes Risk adjusted return, net asset value, expense ratio, professional management or management structure. However, the dependent variable is the Asset under management which is demonstrated with size of fund. The model has been demonstrated as follow.

$$\text{SOF} = \beta_0 + \beta_1(\text{RAR}) + \beta_2(\text{MS}) + \beta_3(\text{NAV}) + \beta_4(\text{EXP})$$

Where:

β_0 =constant co-efficient

β_1 - β_4 = coefficients for variables

3. Research Methodology

The research methodology serves as the systematic framework for data collection and analysis, ensuring the study's accuracy and reliability. The explanatory study design aims to comprehensively understand the variables investigated, addressing gaps in existing literature with a focus on economic activities in Pakistan. Employing a quantitative research approach, the study uses correlational research to assess statistical relationships among variables, offering an efficient means to analyze a large dataset. The target population comprises 20 Asset Management Companies (AMCs) listed on the Mutual Funds Association of Pakistan (MUFAP), with a sample size of six selected well-known AMCs. The selected asset management companies (AMCs) for this study include Al-Meezan Asset Management, National Bank Pakistan Funds, MCB Arif Habib Saving and Investments Limited, United Bank Limited Funds, Allied Bank Limited Funds, and National Investment Trust Limited the reason behind taking these AMC was their ranking which is not lower than the AM-1 and all of these said firms having individual Discretionary and nondiscretionary portfolio more than 100billion, gathered over five years from MUFAP, is primarily secondary. Statistical software's involve E-Views was used for regression and correlation analyses. E-Views, a specialized statistical tool, is chosen for its versatility and user-friendly



interface. panel regression analysis, performed through E-Views, explores relationships between dependent and independent variables. This comprehensive research methodology ensures a rigorous and systematic investigation, contributing to the validity and credibility of the study's findings.

4. Data Analysis

4.1 Descriptive Statistics

Descriptive statistics are essential tools for summarizing and interpreting data across various research domains. Techniques like mean, median, standard deviation, and range provide a comprehensive overview of central tendency, variability, and distribution, aiding researchers in detecting patterns and outliers. These statistical measures contribute to a deeper understanding of underlying phenomena, facilitating effective interpretation and communication of research findings. Mean reveals average values, while median offers robust insights, particularly in the presence of outliers. Standard deviation indicates data spread, and the range presents the span between minimum and maximum values. Descriptive statistics find valuable applications in finance, medical research, marketing, and education, offering quick snapshots and aiding decision-making processes.

Table 4.1

Descriptive Stats

	EXP	RAR	MS	NAV	AUM
Mean	6.529	6.196	0.302	1.487	1907.68
Median	7.597	7.543	0.23	1.48	1542
Maximum	36.66	9.865	0.96	1.98	5684
Minimum	0.322	0.322	0.01	0.91	1243
Std dev.	3.746	2.914	0.248	0.228	853.534

Note: EXP- Expense Ratio, RAR- Risk Adjusted Return, MS- Management Structure, NAV- Net Asset Value and AUM- Asset Under Management.

Table 4.1 provides descriptive statistics for key variables: Expense Ratio (EXP), Risk-Adjusted Return (RAR), Management Structure (MS), Net Asset Value (NAV), and Assets Under Management (AUM, presented in billions). The mean AUM is substantial at approximately 1907.68 billion, with a slightly positively skewed distribution indicated by the median of 1542 billion. The mean EXP is 6.529 million, suggesting relatively low expense ratios on average, with a slightly positively skewed distribution shown by the median of 7.597 million. The mean RAR is 6.196, indicating a moderate level of risk-adjusted return, with a slightly positively skewed distribution (median RAR: 7.543). The mean MS is 0.302, signifying a relatively strong average management structure, with a slightly positively skewed distribution (median MS: 0.230). The mean NAV is 1.487, suggesting a moderate net asset value on average, with a fairly symmetrical distribution (median NAV: 1.480). While standard deviations for all variables are relatively small, indicating clustered data around the mean, AUM exhibits notable variation, evident from its larger standard deviation of 853.534 billion.

4.2 Unit Root Test

The analysis commenced with a unit root test, specifically the "Im, Pesaran, and Shin" panel unit root test, to evaluate the stationary properties of the variables. Both the level and first difference of the variables were examined, considering individual intercept (C) and individual intercept and trend (C&T). Results revealed that at the level, all variables displayed a unit root, signifying non-stationarity, as



indicated by probability values exceeding 0.05. However, when assessing the first differences of the variables, all exhibited stationarity, supported by probability values below 0.05, leading to the rejection of the null hypothesis of unit root existence.

Table 4.2

Panel Unit Root test

Variables	Level (statistic)	1st difference (statistic)	Probability
EXP	-9.42963	-17.5594	0.000
RAR	-2.20696	-16.183	0.000
MS	-5.47911	-9.94854	0.000
NAV	-8.99963	-11.5501	0.000
AUM	-6.85179	-9.07629	0.000

Note: EXP- Expense Ratio, RAR- Risk Adjusted Return, MS- Management Structure, NAV- Net Asset Value and AUM- Asset Under Management.

Table 4.2 presents the results of the panel unit root tests conducted to assess the stationary properties of variables (EXP, RAR, MS, NAV, and AUM) at both the level and first difference. The probability values for all variables in both level and first difference tests are 0.000, which is below the significance level of 0.05. This leads to the rejection of the null hypothesis of the presence of a unit root, indicating that the variables exhibit stationarity at both levels. The confirmation of stationarity is crucial for reliable regression coefficient estimation and meaningful interpretation of variable relationships in subsequent analyses. This enhances the validity and reliability of the regression analysis results, ensuring the robustness of the study's findings.

4.3 Regression Analysis

Table likely presents the results of a regression analysis, which is a statistical method used to explore and quantify the relationships between a dependent variable and one or more independent variables. The table would likely include coefficients indicating the magnitude and direction of influence that each independent variable has on the dependent variable. Regression analysis is a versatile tool employed across various disciplines to understand, predict, and test hypotheses based on empirical evidence. The coefficients in the table would provide valuable insights into the factors contributing to variations in the dependent variable, aiding in pattern identification, establishment of causal relationships, and informed decision-making.



Panel Regression (Fixed Effects)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.347289	0.986293	3.393809	0.0007
EXP	1.011302	0.033887	29.84365	0.0000
RAR	3.061711	0.619184	4.944757	0.0000
MS	-2.999682	0.672451	-4.460821	0.0000
NAV	0.000237	0.000119	1.986756	0.0475
R-squared	0.65858	S.E. of regression	2.197853	
Adjusted R-squared	0.655821	Mean dependent var	6.529129	
F-statistic	238.7069	Prob(F-statistic)	0.00000	

Note: EXP- Expense Ratio, RAR- Risk Adjusted Return, MS- Management Structure, NAV- Net Asset Value and AUM- Asset Under Management.

The panel regression analysis, utilizing fixed effects, was conducted on variables including Expense Ratio (EXP), Risk-Adjusted Return (RAR), Management Structure (MS), Net Asset Value (NAV), and Asset Under Management (AUM). The results reveal significant insights into the relationships between these variables. The constant term (C) demonstrates a significant intercept effect on the dependent variable, AUM. Notably, the Expense Ratio (EXP) exhibits a highly significant positive relationship with AUM (Twati, 2022), indicating that an increase in the Expense Ratio corresponds to a substantial increase in AUM. Similarly, Risk-Adjusted Return (RAR) and Management Structure (MS) show significant positive and negative effects, respectively, on AUM. Although Net Asset Value (NAV) has a marginally significant effect, the overall model is statistically significant, explaining approximately 65.86% of the variation in AUM. These findings contribute valuable insights into the factors influencing AUM in the context of the research.

Table 4.7
Hypotheses Summary

SNO	Hypothesis	Status
1	H1: MS ---> AUM	Accepted
2	H2: EXP ---> AUM	Accepted
3	H3: NAV ---> AUM	Accepted
4	H4: RAR ---> AUM	Accepted

Note: EXP- Expense Ratio, RAR- Risk Adjusted Return, MS- Management Structure, NAV- Net Asset Value and AUM- Asset Under Management.



The study proposed four hypotheses to examine the relationships between factors influencing Asset Under Management (AUM). The results based on T-Statistics and P-values support the acceptance of all four hypotheses. Specifically, the hypotheses asserting the significant impacts of Management Structure, Expense Ratio, Net Asset Value, and Risk-Adjusted Return on AUM were found to be valid. This suggests that the indicated factors indeed play a substantial and statistically significant role in influencing Asset Under Management. The study's findings contribute to a comprehensive understanding of the dynamics shaping AUM in the context of the examined variables.

5. Discussion

The panel regression analysis uncovers significant associations between key factors and assets under management (AUM), shedding light on critical dynamics within the asset management sector. Firstly, the study reveals a substantial link between management structure and AUM ($\beta = -2.999682$, $t = -4.460821$, $p < 0.001$), echoing findings from prior research by Ahmed and Raza (2021) and Jones and Smith (2022). Effective management structures, characterized by transparent decision-making and robust risk management, foster investor confidence and drive higher AUM (Lee et al., 2022; Reilly & Brown, 2018). Similarly, the analysis demonstrates a significant relationship between expense ratio and AUM ($\beta = 1.011302$, $t = 29.84365$, $p < 0.001$), confirming the importance of cost efficiency highlighted by previous studies (Ippolito, 1999; Del Guercio & Tkac, 2002). Lower expense ratios attract investors by boosting net returns, underlining the pivotal role of cost management for asset management firms (Elton et al., 2019). Regulatory reforms promoting expense ratio transparency further underscore its significance in investor decision-making (SEC, 2020). Furthermore, the regression analysis validates a significant relationship between net asset value (NAV) and AUM ($\beta = 0.000237$, $t = 1.986756$, $p = 0.0475$), supporting the notion that higher NAV values attract investors by signaling fund quality and potential returns (Chen et al., 2021; Fabozzi et al., 2022). NAV serves as a performance metric guiding investment decisions, emphasizing its importance for both investors and regulatory oversight. Lastly, the analysis underscores the significance of risk-adjusted return (RAR) in driving AUM growth ($\beta = 3.061711$, $t = 4.94475$, $p = 0.0000$) (Wang et al., 2023; Lee et al., 2022). Funds delivering attractive risk-adjusted returns appeal to investors seeking balanced risk-return profiles, highlighting the need for asset managers to optimize RAR to enhance investment performance and trust. These findings collectively offer valuable insights into the factors shaping AUM within the asset management industry, informing strategic decisions and practices aimed at driving mutual fund success and investor satisfaction.

5.1 Findings

The findings of this research provide valuable insights into the factors influencing assets under management (AUM) in the Pakistani asset management sector. The analysis revealed that management structure has a significant impact on AUM, indicating that asset management companies with well-defined and transparent organizational frameworks, effective leadership, and robust risk management practices are more successful in attracting and retaining investor capital. Additionally, the study found a significant relationship between expense ratio and AUM, highlighting the importance of cost efficiency and competitive fee structures in attracting investors. Furthermore, the research showed that net asset value (NAV) plays a crucial role in AUM growth, with higher NAV values perceived as indicators of fund quality and potential returns. Finally, the findings demonstrated a significant relationship between risk-adjusted return and AUM, emphasizing the importance of delivering attractive returns while effectively managing investment risks. These findings contribute to the understanding of the factors that drive AUM growth in the Pakistani asset management sector and provide valuable insights for asset management companies in optimizing their strategies to attract and retain investor capital. It is important



for practitioners and policymakers to consider these findings in the development of policies and practices that foster a conducive environment for AUM growth and support the growth and sustainability of the asset management industry in Pakistan.

6. Conclusion and Recommendations

6.1 Conclusion

This study investigated factors influencing assets under management (AUM) in the Pakistani asset management sector using panel data analysis and E-Views software over five years. Key findings highlight the importance of management structure, expense ratio, net asset value (NAV), and risk-adjusted return on AUM. A transparent management structure, cost efficiency, higher NAV, and attractive risk-adjusted returns were identified as key drivers of AUM growth. These insights offer actionable implications for asset management firms to optimize their structures, improve cost efficiency, and develop strategies to attract and retain investor capital. Investors can utilize this information to make informed decisions, while policymakers can leverage it to formulate regulations promoting industry health and competitiveness. Despite limitations like reliance on secondary data and industry specificity, future research could enhance analysis by incorporating primary data and exploring AUM determinants across diverse regions and industries. The theoretical implications of this research enrich the existing body of knowledge in asset management by confirming previous findings and theories while also extending understanding in various areas. The significant relationship between management structure and AUM underscores the importance of organizational frameworks, leadership, and risk management practices in attracting and retaining investor capital, aligning with agency theory (Ahmed & Raza, 2021; Lee et al., 2022; Jensen, 2020). Similarly, the association between expense ratio and AUM supports prior research, emphasizing the role of cost efficiency in investor decision-making and fund growth, in line with the efficient market hypothesis (Ippolito, 1999; Del Guercio & Tkac, 2002; Elton et al., 2019; Fama, 1970). Furthermore, the study contributes to the understanding of NAV's significance in signaling fund quality and growth potential, aligning with signaling theory (Chen et al., 2021; Grinblatt & Titman, 2020; Haider & Malik, 2023). Lastly, the research confirms the importance of risk-adjusted return in attracting investor capital, supporting the risk-return tradeoff theory (Wang et al., 2023; Ali & Ashraf, 2022; Markowitz, 1952).

The practical implications of the study offer actionable insights for asset management practitioners, investors, and regulatory bodies. Asset managers can benefit from focusing on establishing transparent governance frameworks to enhance investor confidence and attract more assets, while also optimizing cost structures to offer more attractive investment options and maintaining a high NAV to signal fund quality and growth potential (Ahmed & Raza, 2021; Del Guercio & Tkac, 2002; Haider & Malik, 2023; Ali & Ashraf, 2022). For investors, understanding the significance of management structure, expense ratios, NAV, and risk-adjusted returns can aid in making informed investment decisions. Regulatory bodies can utilize these insights to formulate policies that promote transparency, accountability, and investor protection within the asset management industry.

However, the study has certain limitations that warrant acknowledgment. Reliance on secondary data from a limited sample of asset management companies in Pakistan may restrict the generalizability of the findings. Additionally, the study's focus on specific variables may overlook other factors influencing AUM, and the correlational nature of the analysis limits establishing causality. Furthermore, the use of panel data and assumptions inherent in statistical analysis techniques introduce potential biases. Finally, the study's context specificity may limit the applicability of findings to other countries or regions.



To address these limitations and further advance understanding in the field, several recommendations for future research are proposed. These include expanding the scope of investigation to explore additional variables, adopting longitudinal approaches to examine dynamic changes in AUM, incorporating qualitative research methods to delve deeper into subjective factors, conducting comparative analysis across different markets, investigating the impact of technological advancements, and considering external macroeconomic factors. By addressing these recommendations, future research can contribute to a more comprehensive understanding of the determinants of AUM in the asset management industry.



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