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Impact Of The Ownership Characteristics On Investment Efficiency: Mediating Role Of Frq

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Abstract

The current study aimed to analyze the mediating role of financial reporting quality between the impact of ownership characteristics and investment efficiency in Pakistan while considering non-financial firms. The research relied on data from the Pakistan Stock Exchange listings of 54 non-financial companies. Descriptive analysis revealed the characteristics of the data, revealing that it followed a normal distribution. The endogeneity issues were managed using the generalized method of moments (GMM). Managerial ownership, institutional ownership, [1]and ownership concentration were all shown to have a statistically significant effect on investment efficiency using the generalized method of moments (GMM). The mediation analysis results showed that FRQ is a significant mediator between institutional ownership and investment efficiency, FRQ is a partial mediator between ownership concentration and investment efficiency, and FRQ was not found as a mediator between managerial ownership and investment efficiency. High-quality financial reporting is shown to be a mediator between institutional ownership and investment efficiency, and the study's findings imply that this effect may be maximized. The findings may be helpful in the business community in Pakistan and investors, practitioners, administrators, and academics interested in learning more about the quality of financial reporting and the standards of ownership characteristics processes.

Keywords: *Ownership characteristics, financial reporting quality, investment efficiency.*

Introduction

More productive use of the company's assets results in increased investment efficiency, which in turn boosts the company's success. In the context of Pakistan, where most businesses are held by families and have a high degree of concentration of ownership, IE is a particularly significant concern in corporate finance. Management may overinvest the firm's free cash flows in initiatives with a negative net present value if their objectives are empire building or profit maximization (NPV). Because of their ability to hire managers of their choosing and even to assume executive roles themselves, controlling shareholders in a concentrated ownership structure may personally profit from the company's success(Arora & Singh, 2022). When

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controlling shareholders extract private benefits, the firm's value decreases because minority shareholders are willing to pay less for these shares, increasing the cost of financing and decreasing the amount of money available for a profitable investment opportunity. In a family-controlled governance structure, the information asymmetry between inside controlling shareholders and outside investors is exacerbated, lowering the efficiency and quality of investment because family owners are reluctant to publish underpriced equity of their firms for fear of losing control. The corporate governance systems in developed nations are robust, serving as a reliable check on managers, in contrast to those in developing nations, where such systems are still in their formative stages. In the former, business leaders prefer to use cash on hand to fund new investments, while those in the latter are more likely to turn to the stock market (Carr & Pendry, 2022; Costa et al., 2018). During a period of dwindling investment prospects, ownership structure is a crucial actor in the business world that controls the incentives for insiders to expropriate minority shareholders. Management in East Asia is able to exert strong influence over the firm while having just a fractional stake in the cash flow because of the region's more spread ownership structure. In cases of extreme concentration of ownership, in which dominating shareholders have the ability to expropriate minority shareholders, the protections afforded to shareholders may be weakened. Similarly, in nations that don't guarantee the rights of shareholders, the interests of minority shareholders will be at odds with those of the majority owners(Hady, 2019). Competitive advantage is often regarded as the most important factor in today's highly competitive and wealth-maximizing business environment. Successful investment choices are crucial to the development and profit goals of a company, as well as to the maximization of shareholder capital. U.S. corporate investment as a percentage of GDP fluctuated between 6.1% and 9.4% between 1952 and 2010 as businesses made choices to optimize their assets in the hopes of increasing future income, which in turn impacted economic development. Despite this, businesses always seek for methods to improve the efficiency of their investments, since this is directly tied to the amount of production they can achieve. Superior managers have better investment efficiency because they can zero in on the precise details of each investment opportunity(Kashian, Xue, & Kamal, 2019).

Previous research has shown that shareholder and management interest conflicts, as well as conflicts between the company's majority and minority shareholders, have a negative effect on the efficiency of corporate investment owing to asymmetric knowledge and agency difficulties. The ownership structure of a company has been shown to alleviate agency issues, as seen by higher productivity and profitability, in several academic studies. An important part of any effective corporate governance system is the makeup of the company's ownership(Ma et al., 2022).

However, there are a number of reasons why researchers are interested in the quality of financial reporting. To begin, a company's management is mirrored in its financial statements. Second, it's easier to spot promising investment possibilities when there are fewer bad investment choices and moral risks. Management and shareholders often see things differently, but this discrepancy may be understood by looking at agency theory. Quality financial reporting is a proxy for management's effectiveness and a source of power inside an organisation. An overwhelming preference for cash or an unfavorable bias toward investment choices are both symptoms of poor financial reporting quality. there is a connection between the function of financial reporting as a mediator and the effectiveness of investments(KRISTIAWAN, 2020). Based on the findings, it's clear that minimizing the knowledge gap between business leaders and their vendors is key to increasing investment efficiency thanks to better accounting practices. Additional study was undertaken by Biddle et al. (2009) to address investment efficiency concerns from either an over- or under-investment perspective. The research found that businesses with higher quality financial reporting were less likely to stray from their expected investment level. Financial reporting quality, may alleviate issues with investment inefficiencies(Ma et al., 2022).

As a result, the research sheds light on the function of ownership characteristics in monitoring. While there is a body of prior work on these topics, this investigation is distinct in some key respects. To begin with, despite the fact that the link between Ownership characteristics, its kind, and investment efficiency has not been fully examined, empirical data acquired so far have given mixed evidence (even in developed countries). To add insult to injury, almost any published works focused on such connections in developing economic systems(Madyan, Setiawan, Setianto, AL-ISLAMI, & Shidiq, 2021). Support for examining this relationship from the vantage point of developing markets is insufficient. Similarly, there is limitation of empirical investigation for mediating role of financial reporting qualitybetween the impact of impact of the ownership characteristics on investment efficiency consideringnon-financial firms that are listed on the PSX. The study considers managerial ownership, ownership Concentration and institutional ownership as factors of ownership characteristics.

Objectives

Below are the research objectives

- To investigate the impact of managerial ownership on investment efficiency.
- To examine the impact of ownership Concentration on investment efficiency.
- To investigate the impact of institutional ownership on investment efficiency.
- To analyze the mediating role of FRQ between the impact of managerial ownership on investment efficiency.
- To explore the mediating role of FRQ between the impact of ownership Concentration on investment efficiency.
- To analyze the mediating role of FRQ between the impact of institutional ownership on investment efficiency.

Literature Review

Theoretical Foundations of Research

Businesses' choices to invest are influenced by their ownership structures. Investment efficiency is affected by the ownership structure because of how it affects management decision making. Investment efficiency could be affected by institutional ownership, one of the most important features of a company's structure of ownership. Institutional investors are large organizations' such as mutual or pension funds, insurance and investment businesses, private foundations and endowments (Nurwanti, Hendrian, Nabila, & Lestari, 2022). When opposed to non-founding shareholders, institutional investors get faster access to information. While the lack of legal protection for minority shareholders may lead to the creation of agency issues, the capacity of founding shareholders to regulate the entrance and exit of money without being able to affect the share price leads to an increase in the voting rights that they have. They are able to keep an eye on the company's top brass because of their effective delivery of information to shareholders and monitoring of the organization's performance, both of which show up in the bottom line and improve productivity. Owners in institutional contexts may have a significant role as overseers in cutting down on expensive agency fees. Having appointed the board of directors to look out for their best interests, the institutional owners have more say over the company's management and are able to boost its financial standing(Sujendra, Ratnadi, Sari, & Rasmini, 2019). Voting on crucial choices that benefit the firm or abstaining from actions that would be detrimental to its wealth is an essential role that institutional owners play inside the board. Consequently, such ownership is likely to have an impact on financial choices.

While there have been studies of this impact in industrialized nations, the present investigation focuses on Pakistan, which has a very different climate from that of developed nations. Pakistan was chosen for this investigation because of the unique characteristics of its institutional owners. They vary from country to country. Those people have ties to government organizations. They are non-government organizations in the developed world, in contrast to Pakistan. In comparison to other stock exchanges, the number of international firms listed on the Tehran Stock Exchange (TSE) is small. Because Western investors have a hard time breaking into the Pakistani market, the percentage of such ownership there is less than 1%, compared to developed nations where it is approximately 50% or more. The number of institutional investors has grown in recent years, particularly in industrialized nations. In addition to long-standing institutional investors, a slew of new institutions have joined the market and emerged as the dominant shareholders of many enterprises. Mutual funds and pension funds are two such organizations(Arora & Singh, 2022). As a result of their lack of experience and education, Pakistani business entrepreneurs lack the diversity and expertise of their counterparts in more developed nations. Investment funds are a good case in point since they too have a very little history in Pakistan. As a consequence of privatization and the passage of the country's first stock market statute, institutional investing in Pakistan has exploded in recent decades. In an effort to implement Article 44 of the Pakistani constitution, the selling of shares of state-owned firms to the public via the stock market has started in recent years. The majority of investors in an IPO are typically large corporations and other institutional investors. It is on this point that the supervision hypothesis puts forward the idea that institutional shareholders perform a regulating function over all corporations. Institutional investors play a significant role in industrialized nations, and many businesses there see joint venture funds and pension funds as their owners. Investors are prompted to play active roles by the complexity of ownership arrangements. Consequently, they will likely aid in the reduction of the discretionary management issue. However, some institutional owners are hesitant to exercise control over significant shareholders because of the rising concentration of corporate ownership, pyramid schemes, and insufficient legal safeguards of Pakistani owners. Banks or other non-financial firms may exert a dominating presence and take a variety of activities intended to hurt other institutional investors when stocks of related companies are entangled and voting rights and cash flow rights are kept separate. Therefore, institutional owners might either work with major shareholders to exclude minority shareholders or take part in monitoring management actions with the purpose of decreasing agency conflicts(Alves & Grinshteyn, 2019).

Ownership characteristics and investment efficiency

Below sections present the impact of factors of ownership characteristics on investment efficiency.

Impact of managerial ownership on investment efficiency

Management ownership improves corporate performance and limits the effect of tunnelling by controlling shareholders (Wati & Tamaris Gultom, 2022). Coles, Daniel, and Naveen (2006) show evidence that management ownership in stock options and shares stimulates managers to pursue riskier choice policies, raising investment in research and development. Having managers take pride in their work has been linked to better business results. Similar research by Hu and Zhou (2008) on non-listed Chinese firms found that companies with managerial ownership performed better than those without managers who held any shares. However, they also found that the relationship between managerial ownership and firm performance became negative at stakes above 50%, indicating that the relationship was non-linear(Canejo-Teixeira, Neto, Baptista, & Niza, 2019). However, Jensen and Meckling (1976) found that even with a high degree of management ownership, shareholders' wealth is not maximized since executives are incentivized to spend their own money on perks. Further, evidence suggests that managerial ownership is positively connected with risk-taking behavior, lending credence to the idea that management ownership exacerbates the conflict between stock and bond holders (Saona et al., 2020). High levels of management ownership have been linked to poor investment decisions, such the premature cancellation of high-NPV projects. This view is backed by the research of Spitz and Mueller (2001), which discovered that the degree of private gain extracted by managers grows nonlinearly with the amount of stock they possess. These findings were corroborated by research published in 2015 by Dixon, Guariglia, and Vijayakumaran, who found that while managerial ownership of a company increases the likelihood of its entering export markets, holding more than 23.27 percent of the company's stock can be detrimental to its international ambitions(Forrest, Murie, & Williams, 2021). Thus, from the literature above following hypothesis can be formulated.

H1: Managerial ownership has significant impact on investment efficiency

Impact of ownership Concentration on investment efficiency

Tensions between major and small shareholders have been the subject of a lot of research. Jensen and Meckling (1976) clarified the tension between a principal and an agent in an agency relationship, and they went into further detail about the tension that might arise between a majority and a minority of shareholders (Salehi et al., 2022). As a result of inadequate investor protection, minority shareholders in Asian nations are often expropriated by dominating stockholders. According to the proposal of Gomes and Novaes (2001), major shareholders should create a controlling group that will only give the project the green light if each member of the group stands to gain financially from it. High levels of ownership concentration are bad for investment efficiency (GHOLAMI & Mohamadi, 2019). This is because dominating shareholders have greater power to expropriate the rights of minority shareholders when there is a high degree of ownership concentration.

H2: Ownership concentration has significant impact on investment efficiency.

Impact of institutional ownership on investment efficiency

One of the most important roles of institutional investors is to monitor the managerial staff effectively, as doing so leads to better firm performance and lower agency costs. As a result, improving the performance of firms with poor governance systems presents a promising opportunity for institutional investors' advisory and screening capacities. Independent, long-term speculative institutions have competence at the time of takeover(Grashuis, 2019). As a result, many institutional investors execute a wide range of checks and inspections on management actions. Mardessi (2022) screening institutional investors that have less commercial ties with targeted enterprises improve corporate operational performance. Institutional ownership has been shown to have a positive effect on a company's bottom line, and it has been argued that when management is subject to the scrutiny of large shareholders, they are more likely to keep profits at a reasonable level and invest in areas where they see potential for growth (GOVCOPP, 2020). To back up this claim, Gompers and Metrick (2001) found that an increase in institutional ownership was associated with improved business performance. Saona et al., (2020) there are more effective checks and balances in place, leading to greater overall company performance. Research by Yuan, Xiao, and Zou (2008) on Chinese corporations found that institutional ownership improved the performance of Chinese enterprises after 2000, when institutional investors were first granted access to the stock market. The research of Elyasiani, Jia, and Mao (2010) lent credence to this position by showing that institutional investors improve managerial oversight and corporate performance. Thus, from the above literature above we can formulate following Hypothesis;

H3: Institutional ownership has significant impact on investment efficiency.

Mediating role of Financial Reporting Quality

One of the most important ways to improve economic efficiency is via the practice of "corporate governance," which is defined as the set of rules and practices that control the interactions among a company's leadership, board of directors, shareholders, and other interested parties (Salehi et al., 2022). In this study, we investigate the role of corporate governance and investment efficiency as a moderator of the predicted process interference. FRQ Previous research has shown that corporate governance practices improve FRQ (Harymawan, 2020). Corporate governance provides a structure for setting and measuring an organization's strategic priorities (Harymawan, 2020; Elaoud et al., 2017). Financial backers may rest easy knowing their money will be effectively spent thanks to corporate governance, which is grounded on agency theory. Investors' influence over management, whether or not managers are accountable for misappropriating investor funds, and whether or not investors are satisfied with the returns on their capital investment are all components of corporate governance. Corporate governance structures make it easier to maximize a company's value by keeping management and decision-makers accountable. Corporate governance include the ownership stakes of managers, institutional investors, and the role of the board of directors(Kim, Min, Cho, & Cho, 2020).

Restuningdiah's (2011) research shows that income smoothing significantly affects market responsiveness. Higher income smoothing is associated with lower market-proxy of cumulative anomalous return due to the negative coefficient. This illustrates that shareholders value detailed information offered by a for-profit enterprise. Researchers have different priorities, but they all place a premium on aspects of good corporate governance that have a tight relationship to the independent variables. The ideal number of board members is a contentious issue in the field of corporate governance. The board meets how often? How many board members have no ties to the executive team? Finally, how do we choose qualified individuals to serve as audit committee members? Is it a standalone thing or what? According to the principles of good corporate governance, it stands to reason that the standard of earnings and the length of time it takes to complete an audit are influenced by the quality of corporate governance. There have been conflicting findings from previous research on whether or not good corporate governance improves profit standards or the timeliness of audit reports. Corporate governance factors including ownership concentration, board size, and board independence were shown to have a negative relationship with earnings management (Razak & Zarei, 2018). Analogous findings on corporate governance characteristics and their link with profit quality were discovered in a study conducted in northern America. Board size and board independence have varying impacts on profits management, according to a study of the African market. Despite this conclusion, research found that good corporate governance, including board involvement and CEO duality, has no influence on earnings quality. Sariman, Ali, and Nor (2013) found that effective profit management is inversely related to sound corporate policy and practice. There is evidence of a favourable relationship between the two. Financial reporting on a regular basis may help firms save money on interest payments for loans, which boosts their liquidity. The FRQ between excellent corporate governance and efficient investment has been shown to be the most effective mediator in previous studies(Sajjadi, Paryad, & Balani, 2022). Therefore, the following hypothesis is suggested as a result of the preceding debate.

H4: Financial Reporting Quality mediates the impact of Managerial ownership on investment efficiency

H5: Financial Reporting Quality mediates the impact of ownership Concentration on investment efficiency

H6: Financial Reporting Quality mediates the impact of institutional ownership on investment efficiency.

Methodology

Research Design

In this study, quantitative research type and descriptive research design was applied following the objectives of the study.

Research Population and Sample

The PSX non-financial firm served as the study's population. The PSX 100 Index was considered which follows the PSX's 100 most liquid equities as measured by the Free Float method. The sample size was 56 companies.

Data Collection

The data used in this study came from secondary resources. However, in this study, data was gathered for the period of 2010–2020, i.e., 11 years, from the annual reports of non-financial firms listed on the Pakistan stock exchange and from the websites of these companies.

Variables Measurement

The below proxies were used to measure, independent, dependent and mediating variables.

Table 1

S.no	Variable	Type	Proxy
1	Investment efficiency	Dependent	The proxy for investment efficiency used was the Sales Growth
2	Managerial ownership	Independent	The total number of shares in Company I held by all of the board members as at Time t.
3	Ownership Concentration	Independent	The top five shareholders of Company I at time t, expressed as a proportion of the total number of shares.
4	Institutional ownership	Independent	Amount of shares owned by institutions as a proportion of total shares.
5	FRQ	Mediating	Accrual quality is the consistency with which cash flows are linked to accounts.

Analysis

Multiple statistical analysis techniques were followed in this study and the results are presented in the below sections.

Results

Descriptive analysis

Below sections presents the values of mean, and standard deviation, minimum and maximum for variables of the study.

Table 2

S.no	Variable	Mean	SD	Min	Max

1	Investment efficiency	.0281096	.9782571	-2.27586	2.634132
2	Managerial ownership	1664074	.2299645	0	.9874655
3	Ownership Concentration	.5008894	.3105839	.0024841	1.13873
4	Institutional ownership	1.832376	4.134484	0	28.9751
5	FRQ	.002627	1.767569	-22.1073	22.24404

The minimum and maximum values, as well as the mean and standard deviation, for each variable are shown above. According to research published by Shahzad, Rehman, Hanif, Asim, and Baig, (2019), the mean investment efficiency of non-financial enterprises in Pakistan is 0.0131, whereas the average investment efficiency of finance firms is 0.0100. According to studies of Chen, Ghoul, Guedhami, and Wang, (2017), and Wang and Wang, (2021) the GDP per capita in 63 developed nations and China is 0.0813 and 0.3311 respectively. Even while the median mean of financial reporting quality is about inconsistent, a wide range of values indicates from business to firm, the quality of financial reporting varies. There is more variation in the quality of financial reporting, as observed by previous research (Herbert&Harto,2022; Isidro, Nanda, & Wysocki, 2020). Pakistani non-financial businesses, on average, had a lower Ownership Characteristics value than their developed-world counterparts. The mean for Ownership Characteristics across developing countries is relatively stable at around 0.50, however, research from Ibrahim and Nanefah (2016) found that in Jordan, the value was 0.5101, while research from Muttakin and Brown (2015) found that it was 0.4211 in Bangladesh and 0.45320 in Kenya.

Correlation analysis

Below table shows the results of the correlation analysis between the variables.

Table 3

Variables	IE	MO	OC	IO	FRQ
Investment efficiency	1				
Managerial ownership	.2189	1			
Ownership Concentration	0.044	-0.454	1		
Institutional ownership	0.151	0.044	-0.131	1	
FRQ	0.0087	-0.084	0.431	0.134	1

The above table shows that managerial ownership (.2189), Ownership Concentrations (0.044) and Institutional ownership (0.151) has a weak positive relationship with investment efficiency, while financial reporting quality (0.0087) has also weak positive relationship with Investment efficiency.

Multicollinearity

Variance Inflation Factor (VIF) analysis was used to check for multicollinearity among independent variables. All of VIF's findings are included in the table below.

Table 4

Independent variables	VIF	1/VIF
Managerial ownership	1.299	.77
Institutional ownership	1.106	.904
Ownership concentration	1.153	.868
Mean VIF	1.186	.

There is no significant multicollinearity in these explanatory variables of the research, as shown by the fact that the variance inflation factor for all the variables is less than 10 (Groebner, Shannon, Fry, & Smith, 2008), as seen in the table above.

Generalized Method of Moments

To mitigate the impact of endogeneity, GMM was used in this research. Analysis of the causal relationship between MO, IO, OC, and FRQ was performed. The data tables below show the outcomes of such direct effects.

Table 5

Variable/N	IEN		FRQ		IEN	
	t-value	P-value	t-value	P-value	t-value	P-value
IEN	266.01	0.000**			17.50	0.000***
FRQ				0.000***		0.000***
MGO	3.90	0.000**	-14.37	0.000***		
OWSC	5.98	0.000**	49.41	0.010***		
IOWS	2.18	0.033**	-15.03	0.000***		
Total Obs	715		715		715	
No. of Groups	67		67		67	
No. Instruments	61		61		60	
Hansen test (P_value)	0.600		0.532		0.503	
Arl-Bond AR(2) (P_value)	0.775		0.371		0.709	

A high value for the ownership structure regression coefficient (t=5.98, p=0.000) indicates that ownership structure has a significant impact on the dependent variable. Managerial ownership and institutional ownership have corresponding regression coefficient values of (t=3.90, p=0.000) and (t=2.18, p=0.033), respectively. The findings indicate that investment efficiency is significantly influenced by ownership structure, management ownership, and institutional ownership. Thus H1, H2, and H3 of the research are approved. There is no reason to reject the null hypothesis, given all of the variables are significant (AR (Neither the Chi-squared test (p=0.775) nor the Hansen test (p=0.600) is less than 0.01 percent). In this way, it may be shown that the error term does not have any effect on the instrument, thereby establishing the latter's credibility (Roodman, 2009).

Mediation Analysis

Mediating role of financial reporting quality (FRQ) between impact of managerial ownership on investment efficiency

The Sobel test findings regarding FRQ's mediating function between MGO and IEV are shown in table below. Table displays the results of the Sobel test for the mediating effect of FRQ between MGO and IEV.

Table 6

Model/Dependent Variable			**IEV**
Estimates	Delta	Sobel	Monte Carlo *
Indirect effect	- 0.001	- 0.001	-0.002
Std. Err.	- 0.004	-0.004	- 0.004
z-value	0.024	0.024	0.028
p-value	0.981	0.981	0.977
(Indirect effect/Total effect)	(0.002 / 0.062) = 0.022		
(Indirect effect/Direct effect)	(0.002 / 0.061) = 0.021		
Baron and Kenny Approach	there is no mediation		
Zhao, Lynch, and Chen's Approach mediation	direct-only nonmediation (no		

There is no statistically significant value for the Sobel test of the mediator (p=0.981) in the table above. The extent of the direct and indirect influence of MGO on IEV is also shown in the table. The effect of MGO mediated by FRQ is 0.022, or 22 percent, however the indirect effect via the mediator, FRQ, is only 0.00 times bigger than the direct effect, hence the result is not statistically significant (p=0.021).

Mediating role of financial reporting quality between the impact of ownership concentration on investment efficiency

The table shows the Sobel test findings regarding the mediating function of FRQ between OWSC and IEV.

Table 7

Model/Dependent Variable		**IEV**	
Estimates	Delta	Sobel	Monte Carlo *
Indirect effect	-0.001	-0.001	-0.001
Std. Err.	0.000	0.000	0.000
z-value	-3.510	-3.510	-3.530
p-value	0.000	0.000	0.000
Conf. Interval	-0.002 , -0.001	-0.002 , -0.001	-0.002 , -0.001
(Indirect effect/Total effect)	(0.001 / 0.001) = 0.963		
(Indirect effect/Direct effect)	(0.001 / 0.003) = 0.491		
Baron and Kenny Approach	mediation is partial		
Zhao, Lynch, and Chen's Approach	partial mediation		

In the above table, we can see the results of the Sobel test for the mediating effect of FRQ between OWSC and IEV. The Sobel test of the mediator yielded a statistically significant result (p=0.000) as shown in the preceding table. In addition, the table displays the magnitude of OWSC's direct and indirect effects on IEV. It is shown that FRQ is a somewhat important mediator between OWSC and IEV since the indirect influence via the mediator, i.e., FRQ, is 0.491 times bigger than the direct effect.

Mediating role of financial reporting quality between the impact of institutional ownership on investment efficiency

The table shows the results of a Sobel test investigating whether or not FRQ acts as a mediator between IOWS and IEV. The Sobel test for the mediating function of FRQ between IOWS and IEV is shown in the table below.

Table 8

Model/Dependent Variable		**IEV**	
Estimates	Delta	Sobel	Monte Carlo *
Indirect effect	-0.000	-0.000	-0.000
Std. Err.	0.000	0.000	0.000
z-value	-2.145	-2.145	-2.169
p-value	0.032	0.032	0.030
Conf. Interval	-0.000 , -0.000	-0.000 , -0.000	-0.000 , -0.000
(Indirect effect/Total effect)	(0.000 / 0.000) = 0.257		
(Indirect effect/Direct effect)	(0.000 / 0.000) = 0.347		
Baron and Kenny Approach	mediation is partial		
Zhao, Lynch, and Chen's Approach	indirect-only mediation (full mediation)		

The Sobel test of the mediator exhibits a statistically significant result (p=0.032), as seen in the preceding table. Additionally, the table displays the magnitude of the direct and indirect effects of IOWS on IEV. FRQ is a somewhat significant mediator between IOWS and IEV, with a 0.257 (or 25%) impact after mediation and an indirect effect 0.347 (or twice) higher than the direct effect.

Conclusion

The purpose of this research was to explore the impact of ownership characteristics and investment efficiency and moderating role of FRQ. Descriptive analysis revealed that the data was normally distributed by depicting its properties. When dealing with endogeneity issues, the generalized method of moments (GMM) was used. According to the generalized method of moments (GMM), managerial ownership, institutional ownership, and ownership concentration all have a significant impact on investment efficiency. According to the findings of the mediation analysis, FRQ significantly mediates the relationship between institutional ownership and investment efficiency, FRQ partially mediates the relationship between ownership concentration and investment efficiency, but FRQ does not mediate the relationship between managerial ownership and investment efficiency.

Managerial Policy and Practice Implications.

The findings may be used to formulate policies that strengthen management's control in order to reduce information disparities. Institutionalizing management methods may be responsible for the development in uniformity and thoroughness in the many facets of investment growth and the standards of financial reporting concerns across firms, which in turn may be attributable to the changing features of ownership. The findings of this research mat are used by regulators and C-suite executives to strengthen the structure of boards of directors, audit committees, and top management in order to boost the value of their respective organizations. The results have the greatest impact on the decision-making process for the top-level management team. Companies that are publicly traded as well as regulatory bodies like SECP may be able to put the study's findings into practice to improve their operational efficiency.

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