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Indirect Effect of Earnings Quality in the Linkage between Managerial Ability and Firm Performance: Evidence from an Emerging Economy

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Abstract

Purpose: This paper investigates the associations among managerial ability (MA), earnings quality (EQ) and financial performance of the firm (FP) in the context of Pakistani economy.

Design/methodology/approach: For testing objectives, the research proposed panel data model based on three earnings quality attributes, such as predictability, smoothness, and conservatism, between the managerial ability and corporate financial performance. For estimation, the study analyzed an unbalanced panel of 219 non-financial listed firms on the Pakistan Stock Exchange (PSX) for 2008-2021. To address the concerns of heteroscedasticity and autocorrelation, the study applied fixed effect regression with robust standard errors clustered at the firm level, as suggested by Newey and West (1987).

Findings: -The study provides that overall managerial ability enhances earnings quality and firm performance. In addition, it is observed that earnings quality plays a significant role in enhancing the firm financial performance. Furthermore, the findings also indicate that earnings quality partially mediates the linkage between managerial ability and firm performance. These results support the hypothesis that efficient managers enhance the earnings quality, reduce information asymmetries which translates into higher firm performance.

Research limitations/implications: The current research is limited to the non-financial sector; however, the study findings are undeniably beneficial for corporate managers in the context of developing economies where the managerial skills, quality of earnings and regulatory control is poor.

Originality/value: -The novelty of the study lies in the managerial ability and performance linkage considering earning quality as a mediator. Standard-setters and regulators can use the study's findings to understand how managerial skills affect corporate practices, accounting standards and behaviour.

Keywords: Managerial ability, Earning quality, Firm performance, Emerging economy.

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1. Introduction

According to the prevailing opinion of researchers, the success and expansion of the business world are inextricably tied to the capabilities of its management. In the modern, fast-paced, and cutthroat business climate, making well-informed decisions on time is indispensable. The effect of managerial ability on firm performance has been widely studied in management and organisational literature. Numerous research studies have indicated a positive relationship between managerial ability and firm performance, suggesting that managers with higher abilities contribute to better organisational outcomes. Prior studies have consistently demonstrated a significant positive effect of managerial ability on firm performance [1]. Likewise, the relationship between managerial ability and firm performance has been the subject of considerable management and organisational studies research. Numerous studies have examined the impact of managerial ability on various dimensions of firm performance, such as financial performance, innovation, and productivity [2].

1.1 Financial Performance:

One aspect of firm performance that is often studied concerning managerial ability is financial performance. For example, a study by [3] found a positive relationship between CEO managerial ability and firm financial performance, suggesting that more capable CEOs tend to lead more successful companies.

1.2 Innovation:

Another dimension of firm performance is innovation. A study by [4] found that CEOs with higher managerial abilities are likelier to foster an innovative culture within their organisations, positively impacting the firm's ability to develop and introduce new products or services.

1.3 Productivity:

The managerial ability has also been linked to firm productivity. A study by [5] examined the relationship between managerial ability, measured using structured management practices, and productivity across large manufacturing firms. The study found that firms with better managerial practices have higher productivity levels [6].

It is important to note that various contextual factors, such as industry characteristics, firm size, and the competitive environment, can influence the relationship between managerial ability and firm performance. The measures used to assess managerial ability and firm performance may also vary across studies.

However, the present study is an endeavor to investigate managerial competencies and financial performance association the other way around in developing economic conditions. In developing countries, corporations face various managerial concerns, for instance, a lack of skilled personnel and inadequate highly educated individuals due to the uncertain economic environment and volatile financial markets. According to agency theory, opportunistic and self-centered managers always try to think opportunistically rather than preferring the interest of the firm's value and undermining shareholders' wealth maximisation [7]. In poorly governed corporations, managers and shareholders instigate cost of capital to raise because of the conflicting interest. In a developing country, for instance, Pakistan, the widely held businesses are controlled by families or big tycoons who keep the managerial and strategic decisions in their own hands [8, 9]. Therefore, considering such complications, the present research investigated the MA-FP correlation indirectly through the channel of earnings quality, using it as a mediating factor. Earnings quality assessment is a significant metric for evaluating a firm's overall operational effectiveness, but it has been overlooked in prior studies. The study utilises the mediation technique developed by [10] and [11] along with a bootstrapping approach to ensure the robustness of the findings.

According to [8, 12] arguing on positive accounting theory, there is a close association between managerial behaviour, earnings quality and firm value. Positive accounting theory posit that earning quality enhance the firm performance in the absence of managerial opportunistic behaviour [13]. Numerous researchers have demonstrated that firms with comparatively high earnings quality exhibit exceptional performance [14-16] Similarly, stewardship theory asserts that directors can best serve shareholders by increasing their utility as opposed to their interests [17]. Althoug, the managers oftenly involved in manipulating firm earnings to show high profit to earn high bonuses get promotion, and consequently, mislead the investors and other stakeholders [7, 18]. Hence, to the best of our knowledge, this study is the first of its kind which filled the existing literature gap by addressing this very important association.

In line with the above argument, this study enables firms to maximise their resources and capitalise on new opportunities. [19] Suggest that managers with higher capabilities can enhance the primary performance of their firms by optimising existing resources. Proficient managers' internal solid control system prevents the waste of financial reserves [1]. In addition, effective risk management by competent managers allows organisations to seize valuable investment prospects through lower-cost debt and equity financing, especially during the growth stage [20-22] The results exhibit that managers' grasp of industry and technology facilitates the production of reliable product demand forecasts, recognition of value-enhancing initiatives, and effective utilisation of resources within the organisation.

Nonetheless, company executives have a variety of motivations to "meet the figures" and a variety of discretionary powers to affect the earnings figure. Managers' opportunistic actions regarding reported earnings affect stakeholder relationships, the company's reputation, and the value of the business as a whole [23]. However, the existing literature posits that competent managers, who have a reputation to uphold, are likely to decline exploitative rent-seeking tactics that have a detrimental impact on the company's worth.

Based on the prior literature, Our research is the first to examine whether managerial ability indirectly affects the value of the firm through the indirect channel of earnings quality as a mediator. The relationship between managerial ability and company performance is only partially understood without considering this factor. As a result, our study contributes because this critical missing connection undermines existing management competence and business value studies. Additionally, In order to examine the issue in a setting of experimentation with a greater sample size and the number of enterprises, recent data are used in the context of Pakistan in this study. This study selected a sample of 219 non-financial firms for the period of 2008 to 2021.

The remainder of this article is divided into the following sections. The theoretical and literature framework for developing hypotheses is explained in Section 2. The sample selection, data collection, variable formulation, and empirical methodologies are covered in Section 3. The discussion in Section 4 provides more information on the empirical findings. The conclusion and any policy ramifications are revealed in the final section.

2. Theoretical review

According to the agency theory proposed by [7] conflicts might arise when management (as agent) and the owner (as principal) have competing goals. Financial Reporting Quality is best comprehended using the lens of agency theory. As a result of modern business practices, ownership and management are often kept entirely separate. Managers have the option of seizing the moment for their interest. Managers can engage in inappropriate behaviour when drafting financial statements.

On the other hand, stewardship theory asserts that directors can best serve shareholders by increasing their utility instead of their interests. The proponents of the stewardship idea can support their assertions with concrete evidence [24]. [25] find that managers with superior abilities are more motivated to increase earnings reporting than their peers with accrual profit management. In general, highly skilled managers are expected to maintain a more extraordinary ability to estimate accruals since they possess more excellent knowledge of environmental factors.

In addition, [2] asserts that a manager with exceptional abilities will often steer clear of actions that could damage his reputation. However, by engaging in fraud, competent management may be able to harm the company's performance. Several studies suggest that managers receive additional compensation and own a significant level of expertise and standing, thereby refraining from engaging in earnings management to safeguard their reputation [26]; hence, the agency conflict is mitigated [27]. Research indicates that these managers can make optimal use of resources [14] and it is anticipated that they will reduce earnings management. As per positive accounting theory, the market is deemed efficient, and managers are expected to

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make optimal decisions owing to the relatively low levels of information asymmetry.

Additionally, the low cost of capital is believed to enhance earnings quality [28]. However, agency relations can be challenging due to opportunistic managers who may prioritise their interests over the organisation's interests. This management's self-serving behavior poses a threat to the investors. The investors are perpetually threatened with the loss of their wealth.

3. Review of Literature and Construction of Hypotheses

3.1 Managerial ability and Firm Performance

The current economic and management research body has frequently acknowledged managers' crucial role in determining corporate performance [29-31]. The performance of any corporation is determined mainly by a competent management team [3]. Numerous studies have examined how managerial traits are essential in determining company performance. One such study is that of [19] who demonstrate how numerous leader and company-specific attributes influence corporate behaviours. The study by [32] highlights the significant impact of management competence on a company's financial disclosure transparency and reporting excellence. According to [33] findings, their managers' competence significantly affects organisations' disclosure procedures.

High managerial abilities streamline raising capital to boost firm profitability [34, 35]. Nonetheless, a company with competent management can entice investors since it continuously generates cash flow from activities. As a result, the value and stability of a company are directly proportional to the quality of its management. [36] found that companies with competent management make intelligent choices that boost productivity and profitability. Consequently, competent management is a factor in the success and efficiency of a business.

$\boldsymbol{H_1}$: *Managerial ability is associated significantly and positively with better firm performance.*

3.2 Managerial ability and Earning Quality

The ability of managers to make precise judgments and estimates varies between individuals. We anticipate that more competent managers will have a deeper understanding of the company and the market, and enhancing the ability to amalgamate information to produce precise predictions for the future can provide higher-quality results [37, 38]. Managers with high ability are expected to provide more precise accruals estimates than their low-ability managers. For example, let us contemplate approximating the provision for doubtful accounts. A competent manager would be inclined to adjust the historical rate of bad debt, whereas a less competent manager may rely on the firm's historical rate based on macroeconomic and industry trends, as well as customer base shifts [39-41]. Similarly, Managers with more outstanding capabilities are expected to provide more precise and defensible depreciation rates, equitable valuations, and additional accrual estimations. Thus, under the assumption of a constant business model, a manager possessing more remarkable ability is anticipated to generate high-quality earnings.

Numerous research, notably [42] and [25], have identified contradictions in the correlation between MA and EQ. Further research, particularly those conducted by [43, 44] indicates that managers with higher reputations can ensure lower earnings quality. Consequently, apart from the favourable effects, the abilities of management can yield unfavourable outcomes if managers are encouraged to meet performance benchmarks through alternative means, such as the manipulation of financial earnings. Focusing on the understanding of a manager's impact on the quality of earnings, which may manifest as either positive or negative, one may posit the Second hypothesis in the following ways:

$\boldsymbol{H_2}$: *Managerial ability positively influences earning quality attributes*

3.3 Earning Quality and Firm Performance

To accurately assess a firm's performance, its earnings quality is an important consideration [45]. [46] state that high-earnings quality give the decision maker more information about the company's performance that is

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directly related to the choice. [16] study the connection between seven earnings qualitative attributes and equity cost. In this study, the attributes of earnings quality were classified into two categories: accounting- and market-based characteristics. Accounting-based characteristics include predictability, accrual quality, persistence, and smoothness, while market-based characteristics include timeliness, conservatism, and value relevance. They discovered that accounting-based variables had a far more significant impact on the cost of equity than market-based attributes [47].

In addition, [48] address the impact of smoothness on the performance of firms as measured by earnings per share. The study explores the impact of two explanatory variables, namely the implementation of smoothing versus non-smoothing measures and the level of earnings quality, categorised as either high or low, and finds that earnings smoothers positively impact the price-to-earnings ratio. Similarly, [49] studied the relationship between three earnings quality attributes and company performance in Malaysia as evaluated by ROA and Tobin's-Q. Measures of earnings quality include predictability, feedback value, and timeliness. The findings indicate that the performance of Malaysian firms is positively influenced by earnings quality. [50] Brown and Hillegeist (2007) noted that a negative correlation exists between the precision of financial reporting and the occurrence of information asymmetry. The reduction of information asymmetries serves as a motivation for investors to participate in portfolio diversification, which results in a decrease in their cost of capital. This, in turn, leads to an enhancement in the firm's overall value. According to the literature, financial reporting quality improves stakeholder knowledge and firm value. In conclusion, it is anticipated that:

$\boldsymbol{H_3}$: *Higher earnings quality leads to higher value for the firm.*

3.4 Managerial ability and firm performance-Mediating role of earnings quality

Managers play a crucial role in the financial reporting procedure and significantly influence profitability through their operational actions[51, 52]. Managers with improved capabilities may also close the information asymmetry gap with markets amid a financial crisis to improve the quality of financial reporting [2]. The more particular the talent instilled in managers, the less likely it is to be transferred to other organisations and the more difficult it is for competitors to imitate, making it an efficacious source of enhanced performance [53]. In conclusion, the choice of accounting procedures by managers to achieve financial reporting objectives can indeed have significant implications for the quality of a company's financial reports. When used appropriately and in accordance with accounting standards, these procedures contribute to transparent and reliable financial reporting. However, when abused for self-serving purposes, they can undermine the integrity of financial information and erode investor confidence. Effective regulatory oversight and adherence to ethical principles are essential to maintain the quality of financial reporting [51, 54].
[16] provide the most persuasive data about the impact of EQ on the FP of U.S.-based corporations. This study demonstrates that organisations with unmanaged earnings quality have poorer firm performance than those with exceptional earnings quality. According to the studies, earnings quality has reduced the cost of equity capital, affecting future earnings and stock value [55, 56].

Additionally, [57] investigated to determine whether the association between governance and value is strengthened by earnings quality. [58] have shown that the impact of independent commissioner composition and the number of audit panels on the cost of capital can be effectively mediated by earnings quality. The current research aims to investigate the indirect association between MA and FP, which is facilitated by the mediating factor of EQ. Thus, concerning the research query "Does earnings quality serve as a mediator in the relationship between MA and firm performance?" the hypothesis is as under:

$\boldsymbol{H_4}$: *Earnings quality mediates the relationship between managerial ability and the value of the firm.*

4. Methodology

4.1 Sample Selection and Population

The ongoing study has taken yearly panel data for a sample of 219 non-financial companies quoted on the Pakistan Stock Exchange (PSX) over a period ranging from 2008 to 2021. The initial set of 544 quoted

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companies excludes financial sector firms due to their unique characteristics and operations subject to a distinct regulatory and legal framework. The relevant data for analysis used in this study has been extracted from the companies' audited financial reports, which are available on each company's websites, and the annual financial statements published by the State Bank of Pakistan.

Table 1Final Sample Selection

Selected Sample from 2008 to 2021	
The total number of companies enlisted on PSX	544
Less: Modarabas, Commercial Banks, Insurance Companies, Investment Banks, Mutual Funds, Leasing Companies, and Insurance Companies.	(130)
Less: Firms exclusion based on insufficient data or removal from the list during the sample period.	(195)
Confirmed sample of the research.	219

4.2 Measurement of Variables

4.2.1 Managerial Ability (Independent Variable)

In compliance with [25], in this research investigation two-step approach is employed to quantify managerial ability score. Managerial ability score is estimated by employing Data Envelopment Analysis (DEA) to determine a company's industry-specific input-output efficiency in the first phase. The output variable in Equation (1) is the firm's sales (Sales), and the input variables are the cost of goods sold, selling and administrative expenses, property, plant, equipment, net operating leases, and net research and development. The following optimisation procedure calculates the firm's efficiency score, which ranges from 0 to 1. (Equation 1). The score for firms on the efficient frontier is one, while the score for the least efficient firms is zero.

$$Max_{\ v}\ \theta = \frac{Sales}{V_1CGS+V_2SG\&A+V_3PPE+V_4R\&D+V_5InTAN} \ldots\ldots\ldots\ldots(1)$$

However, the MA component and firm-specific variables can influence how the DEA method determines a company's efficiency score. In the second phase, [25] regress the firm-level efficiency score on firm-specific parameters to capture the influence of MA.

$$FE = \alpha_0 + \alpha_1 LnTA + \alpha_2 MS + \alpha_3 FCF + \alpha_4 LnAge \ldots\ldots\ldots\ldots (2)$$

Where;

LnTA is for the natural logarithm of the book value of total assets, while MS stands for market share, which is the proportion of firm sales to total industry sales, FCF stands for free cash flow, and LnAge stands for firm age.

4.2.2 Firm Performance (Dependent Variable)

The current study employs Tobin's Q as a market-based measure. Tobin's Q is utilised as an alternative measure for evaluating a company's performance within a financial market. According to [59], a high Q value indicates the market's perception of the company's strong performance. Tobin's Q ratio is a financial metric computed by dividing the sum of market capitalisation and total debt by the total assets of a company.

$$Tobin'sQ = \frac{MVS + Book\ value\ of\ ST\ \&\ LT\ Debt}{(Total\ Asset\ (FA, CA, Inv)} \ldots\ldots\ldots\ldots(3)$$

4.2.3 Earnings Quality Attributes (mediator)

Persistence

According to [60] persistence pertains to the ability of a firm's earnings to recur in the future and the sustainability of its reported earnings. In their study, [61] derived the slope coefficient, denoted as β, using the regression model presented below:

$$NIBE_{j,t}\ /ASSETS_{j,t-1} = \beta_0 + \beta_1 NIBE_{j,t-1} /\ ASSETS_{j,t-1} + \varepsilon_{j,t} \ldots\ldots\ldots\ldots(4)$$

where,

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The variables NIBEj,t and NIBEj,t-1 represent the net income before extraordinary items for the j firm in time t and t-1, respectively. TASSETSj,t-1 refers to the total assets of the j firm in the previous year (t-1), while εj,t denotes the error term.

Equation (4) is estimated for each firm using rolling five-year windows. Higher β1 shows a higher level of earnings quality.

Smoothness

Prior studies by [62, 63] documented that smoothness is desirable. The smoothing level is evaluated by the degree of volatility in earnings. In literature, different proxies are documented to measure the degree of smoothness. [64] calculate the degree of smoothness by dividing the standard deviation of earnings and the standard deviation of operating cash flows. [61] utilise a similar ratio by scaling both variables by lagged assets.

$$SM_{i,t} = \sigma\left(\frac{NIBE_{j,t}}{TASSETS_{j,t-1}}\right)/\sigma\left(\frac{CFO_{j,t}}{TASSETS_{j,t-1}}\right) \quad \ldots\ldots(5)$$

Standard deviation calculation is performed using rolling windows spanning five years. Greater values of "SM" indicate reduced smoothness, which serves as a proxy for enhanced earnings quality.

4.3 Control Variables

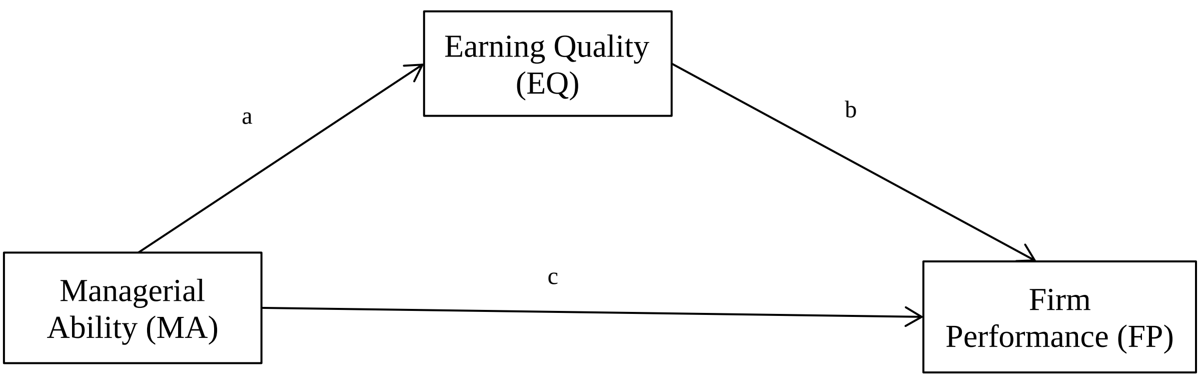
To control the effect of other endogenous factors, the study considered the effects of sales growth, firm size, leverage, and firm age following [8, 65, 66]. The natural logarithm of total assets is taken to control the effects of firm size (FS). Leverage is a measurement that determines the degree to which an organisation relies on creditors or lenders to finance the assets it owns. [67] calculate leverage (LEV) as a long-term debt divided by total assets. Growing corporations are supposed to enhance company value and earnings quality, yet they are potentially detrimental firms that inflate their results. Sales growth (GW) is the proportional rise in sales from the prior year [8, 68]. The firm's age is measured by applying a logarithm of the year once the firm has been incorporated [69].

4.4 Mediation analysis

Through the use of a mediating variable (earnings quality), we investigate the relationship between an independent variable (managerial ability) and the dependent variable (firm performance) in a mediation study [70]. According to [10] the goal of mediation analysis is not merely to describe the interaction between independent and dependent variables but also to shed light on the nature of the relationship between them.

The correlation between management ability, earnings quality characteristics, and company performance is shown in Figure 1. We separate the direct and indirect impacts of managerial ability (MA) on firm performance (FP).

Figure 1Causal Association Among Managerial Ability, Earnings Quality Attributes, and Firm Performance



on FP can be categorised into two components: direct and indirect. The direct effect is denoted by "c," while the indirect influence through the mediating variable, earnings quality attribute (EQ), can be estimated as "ab" by

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combining the "a" and "b" pathways. As per the findings of [10] it is possible to quantify all pathways through regression analysis.

Estimation modeling

To address the direct and indirect effects of managerial ability (MA) on firm performance (FP), as illustrated in Figure 1, we build our econometric model in the following order.

$FP_{it} = \alpha + \beta_1 MA_{i,t} + \beta_2 AGE_{it} + \beta_3 GW_{it} + \beta_4 LEV_{it} + \beta_5 FZ_{it} + \varepsilon_{it}$ ………… (1)
$EQ_{it} = \alpha + \beta_1 MA_{i,t} + \beta_2 AGE_{it} + \beta_3 GW_{it} + \beta_4 LEV_{it} + \beta_5 FZ_{it} + \varepsilon_{it}$ …………(2)
$FP_{it} = \alpha + \beta_1 EQ_{i,t} + \beta_2 AGE_{it} + \beta_3 GW_{it} + \beta_4 LEV_{it} + \beta_5 FZ_{it} + \varepsilon_{it}$ …………...(3)
$FP_{it} = \alpha + \beta_1 MA_{it} + \beta_2 EQ_{it} + \beta_4 AGE_{it} + \beta_5 GW_{it} + \beta_6 LEV_{it} + \beta_7 FZ_{it} + \varepsilon_{it}$....(4)
Where;
EQ is earnings quality attributes (Persistence, Smoothness), MA is managerial ability,, FZ is firm size, LVG is leverage, GW is growth opportunities, FP is firm performance. The firm is denoted by the subscript “i” while the period is denoted by the subscript “t”.

5. Results and Discussion

5.1 Descriptive Analysis

The essential indicators for evaluating the data are the fundamental statistics values shown in Table 2. All variables have normal distributions, as evidenced by the descriptive values. This implies that the data collected within the endogenous framework can be used for further investigation.

Table 2 Summary Statistics

Variables	Mean	Median	Max	Min	Std. Dev.
Tobin's Q	1.212	1.003	2.450	0.651	0.563
Managerial ability (MA)	0.001	-0.033	3.341	-13.019	1.285
Persistence (PER)	0.064	0.051	0.150	0.014	0.043
Smoothness (SM)	0.678	0.519	1.752	0.142	0.513
Leverage (LEV)	0.032	0.148	4.834	-4.738	2.688
Firm size (FZ)	15.355	15.295	17.430	13.142	1.356
Sales growth (GW)	6.663	6.644	7.595	5.689	0.593
Firm age (AGE)	1.519	1.505	1.771	1.255	0.174

5.2 Correlation Analysis

Table 3 displays the correlation coefficients between variables, intending to assess the correlation between the independent and dependent variables to eliminate determinants that may contribute to multicollinearity before running the regression model. We can conclude a significant link between Tobin's Q and all factors exists. However, MA is positively associated, except for firm leverage. Apart from LEV and PER, AGE is positively related.

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Table 3 Correlation Matrix

Variables	Tobin's Q	MA	PER	SM	FZ	LEV	AGE	GW
Tobin's Q	1							
MA	0.0230	1						
PER	0.0017	0.0127	1					
SM	0.0475	0.0050	-0.0459	1				
FZ	0.0103	0.1783	-0.0031	0.0089	1			
LEV	0.0439	-0.0901	-0.0142	-0.0163	-0.2258	1		
AGE	0.0669	0.1796	-0.0096	0.0126	0.2154	-0.0545	1	
GW	0.2190	0.0252	0.0225	0.1135	0.0561	0.0149	0.0112	1

***significant at 1%, ** significant at 5%, * significant at 10%

5.3 Regression Estimation

In this section, the direct, indirect, and combined effects of managerial ability (MA) on performance (Tobin's Q) through the mediating channel of earning quality attributes (Persistence, smoothness) are documented. A comprehensive description of the findings is reported in the forthcoming sections.

In Table 4, Model-1 inferred that the direct effect of managerial ability on market-based performance (Tobin,s Q) is positive and significant as (0.159 at $p < 1\%$). It also validated the research hypothesis H1 and the positive and significant correlation between MA and Tobin's Q [2, 30]. In order to boost earnings, organisations sometimes bring in experienced managers from related fields to oversee essential operations. It means that an increase in managerial skills enhances performance consistent with the prior studies (Latif et al., 2020). Model 2 confirms the significant positive impact of MA on Persistence (PER) as $\beta 1 = 0.221$ at a p−value < 0.01 level of significance. Model 3 provides the significant and positive effect of persistence (PER) on (Tobin's Q) at the (0.005 p-values <10 % [15].

Model-4 depicts the total effect (TE), concluding that direct (0.159, $p < 0.01$) and indirect effects are significant at (0.098, p-value < 0.001), respectively. The significant direct and indirect effects confirmed the existence of partial mediation and supported hypotheses H1, H2, H3, and H4. The same signs of the coefficients strengthen the magnitude of the MA-performance association.

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Table 4 Fixed Effect Results Persistence (PER) as a Mediator (1,2,3 & 4)

Variables	Tobin's Q	PER	Tobin's Q	Tobin's Q
MA	0.159**	0.221**		0.098***
	(0.045)	(0.005)		(0.004)
PER			0.005*	0.005*
			(0.003)	(0.003)
FZ	-0.028**	0.383***	-0.012	-0.013
	(0.012)	(0.128)	(0.368)	(0.037)
GW	0.041*	-1.250***	0.044**	0.041*
	(0.211)	(0.358)	(0.022)	(0.023)
LEV	0.042*	0..445**	0.761***	0.682***
	(0.788)	(0.044)	(0.002)	(0.154)
AGE		0.446**	0.681***	0.683***
		(0.149)	(0.096)	(0.094)
Firms fixed effects	YES	YES	YES	YES
Year fixed effects	YES	YES	YES	YES
R-squared	0.44	0.49	0.45	0.44
Firms included	219	219	219	219
Hausman Test	0.000	0.000	0.000	0.000

Note. Hetro -Auto consistent Standard Errors, as suggested by Newey and West (1987) suggested.

***significant at 1%, ** significant at 5%, * significant at 10%

Table 5 demonstrates the fixed effect regression output of direct (DE), indirect (IDE), and total effects (TE) of MA on the firm financial performance (Tobin's Q) through the Smoothness (SM). Model 1, fixed effect regression estimates show that the direct effect of the explanatory variable MA has a positive and significant impact on the firm performance (Tobin's Q) at a 5% significance level. Size has a statistically negatively significant impact on firm performance (Tobin's Q). Also, estimates of Model-2 provided that the effect of MA on smoothness (SM) was statistically significant and supported hypothesis H2.

However, sales growth (0.192, $p < 0.05$) and firm age (0.124, $p < 0.05$) are positive and statistically significant at $p < 5\%$, respectively. Model -3 displays that the impact of smoothness (SM) on TQ is significant at 5% supported hypothesis H3. Model-4 exhibits the total effect estimates or combined effect, i.e., direct and indirect effects. The direct effect (0.0159, $p < 0.001$) is positive and statistically significant, while the indirect effect (0.091, $p < 0.01$) is also positive and statically significant. The findings confirm partial mediation in the association between MA and performance indirectly through the channel of EQ attribute-smoothness (SM)

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acting as a mediator. These findings lend credence to the notion that managers balance out temporary and irrelevant cash flow fluctuations to disclose confidential facts about a corporation's efficiency [61].

Table 5 Fixed Effect Results Smoothness (SM) as a Mediator (1,2,3 & 4)

Variables	Tobin's Q	SM	Tobin's Q	Tobin's Q
MA	0.159*** (0.045)	0.050** (0.005)		0.091** (0.004)
SM			0.000** (0.050)	0.062*** (0.005)
FZ	-0.028 (0.012)	0.062* (0.022)	0.014 (0.046)	-0.056*** (0.037)
GW	0.041* (0.211)	0.192*** (0.043)	0.154* (0.002)	0.165*** (0.100)
LEV	0.031* (0.788)	0.645*** (0.044)	0.053* (0.002)	0.166*** (0.154)
AGE	0.054*** (0.075)	0.926*** (0.187)	-0,115 (0.100)	0.101*** (0.025)
Firms fixed effects	YES	YES	YES	YES
Year fixed effects	YES	YES	YES	YES
R-squared	0.394	0.476	0.436	0.395
Firms included	219	219	219	219
Hausman Test	0.000	0.000	0.000	0.000

Note. Hetro -Auto consistent Standard Errors as suggested by Newey and West (1987).
***significant at 1%, ** significant at 5%, * significant at 10%

6. Discussion

The present study makes a valuable contribution to the existing literature on managerial ability, earnings quality attributes and firm performance. It has been found that organisations that possess managers with higher levels of competence tend to exhibit greater profitability. With their professional and academic expertise, effective managers ensure the optimal utilisation of the company's limited resources in challenging environments. The positive impact of MA on financial performance, particularly regarding Tobin's Q, is consistent with previous academic literature and theories. The outcomes coincide with those [8, 32, 71]. In this case, stewardship theory supports the positive impact of managerial ability. According to stewardship theory, offering managers the freedom to make decisions can motivate individuals to contribute more [2, 72]. Researchers on this side of the argument concur that financial incentives drive managerial behaviour and that judgment is necessary to maximise a company's shareholders' value.

Additionally. This study reveals a positive correlation between MA and EQ attributes. This finding is consistent with the concept that higher managerial competence is positively associated with the accuracy of accrual estimation. According to the findings, employing competent managers can reduce their opportunistic actions and boost their earnings of higher quality. The findings highlight the need for a wide range of managerial abilities. As a result, it is recommended that businesses with effective management come to terms with a desirable contract that offers advantages to each side. Since the Pakistani market has been subject to stringent economic sanctions recently, most Pakistani businesses have experienced financial challenges. Our research indicates that proficient management is a crucial aspect of businesses.

Furthermore, the impact of EQ attributes on FP is significant and positive. The findings corroborate with positive accounting theory and suggest the significant impact of earnings quality on a company's operational aspects and firm growth (as measured by Tobin's Q). Similar to the studies conducted by [49] and [14] suggest that earnings are linked to company performance.

Correspondingly, the indirect effect of MA through the mediating channel is also significant. The partial mediation of the relationship between MA and FP was observed through the earning quality attributes (EQ) [70]. Managers are crucial players in the accounting process and substantially impact profitability through their operational activities [52]. To enhance financial reporting, managers with expanded capabilities may also be able to narrow the information asymmetry gap with markets [2]. The more specific the talent developed in managers, the less probable it is that it will be transferred to other organisations. The more difficult it will be for competitors to duplicate, making it a potent source of improved performance [53]. The argument is justified by the significant direct and indirect effect that managerial ability and mediators are essential for corporate efficiency.

7. Conclusion

The current research investigates the association between MA and FP directly and indirectly through the channel effect of EQ attributes on the managerial ability-firm performance nexus. The study examined two earnings attributes, smoothness, persistence, and Tobin's Q, a widely used indicator of financial performance. We find a strong correlation between MA and EQ characteristics. The findings highlight the importance of competent and skilled management in ensuring the accuracy and credibility of financial reporting. Additionally, a significant and positive correlation was found in the managerial ability-performance relation.

Furthermore, The indirect effects of MA on FP via the EQ channel (such as persistence and smoothness) are likewise positive and significant, confirming partial mediation. These findings support the notion that empowered managers improve transparency in financial reporting, reduce information asymmetries, and increase business value.

7.1 Implications

The findings of our study hold substantial implications for both theoretical and practical domains, particularly for policymakers and managers. Our study expands the existing research by demonstrating the mediating role of EQ in the relationship between MA and FP. Regarding theoretical implications, as per the stakeholder theory, managers can utilise resources effectively and efficiently [14]. This is expected to reduce earnings management, as [25] suggested. The concept emphasises that influential individuals have the potential to shape their judgments regarding the strategy and structure of their organisations, thereby exerting a direct influence on their success. Overall, the positive accounting theory offers a framework for understanding the relationship between accounting practices, earnings quality, and firm value in the context of self-interested behavior by managers and shareholders. It suggests that high-quality financial reporting can enhance corporate performance by reducing agency costs and aligning the interests of key stakeholders, but it should be considered alongside other theories and ethical considerations when evaluating accounting practices.

Additionally, Better managers have a deeper understanding of their business, which results in better judgments and estimations; consequently, higher-quality earnings result in enhanced firm performance. Policymakers in the electronics sector promote more effective leadership programmes to improve managerial abilities while formulating policy. Furthermore, Investors and their advisors should grasp the patterns of earnings quality proxies to guide informed investment decisions and portfolio diversification strategies, especially during investment instability.

7.2 Limitations and future recommendations

This study includes two earnings quality proxies and one business value metric. As indicated, future research should utilise the alternative earnings quality and firm value indicator. Due to time constraints, only 219 listed firms were evaluated in this study. Since obtaining their annual reports is challenging, non-listed enterprises in Pakistan are omitted from the collection. The banking sector is outside this study's scope because of its distinct capital structure and accounting practices. Therefore, these results cannot be generalised.

Furthermore, this study focuses on a single emerging economy. Future studies could conduct a comparative analysis of industrialised economies and emerging economies. Potential research could explore the link between managerial ability and the practice of earnings management, in addition, a study examining the relationships among managerial ability, earnings management, and infrastructure determinants in the context of financial reporting quality can yield valuable insights for both academia and practice. It can help firms identify areas for improvement, guide policymakers in regulatory decisions, and enhance the credibility and reliability of financial reporting, ultimately benefiting various stakeholders in the financial reporting ecosystem.

Disclosure statement

No conflict of interest

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