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The Moderating Role of Product Market Competition in the Association between Managerial Ability and Financial Reporting Readability

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Abstract

This paper explores how managerial ability affects financial reporting readability and examines the moderated role of product market competition in the relationship between managerial ability and financial reporting readability. Using a sample of 48 non-financial Egyptian companies listed on the EGX100 with 432 observations through the period 2013–2021 and depending on Ordinary Least Squares (OLS) and the Generalized Method of Moments (GMM) regression models, Results exhibit that there is a negative impact of managerial ability on financial reporting readability. Moreover, product market competition has a negative effect on financial reporting readability. Nevertheless, the results show that product market competition moderates the negative effect of managerial ability on financial reporting readability in both OLS and GMM models. A robustness check confirms the positive impact of product market competition on the association between managerial ability and financial reporting readability.

Keywords: Product market competition, managerial ability, financial reporting readability.

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الدور المُعدل للمنافسة فى سوق المنتج على العلاقة بين القدرة الإدارية وقابلية التقارير المالية للقراءة

ملخص البحث

يهدف هذا البحث إلى فحص كيفية تأثير القدرة الإدارية على قابلية التقارير المالية للقراءة وكذلك إختبار الدور المُعدل للمنافسة في سوق المنتج على العلاقة بين القدرة الإدارية وقابلية التقارير المالية للقراءة. بإستخدام عينة مكونة من 48 شركة مصرية غير مالية مسجلة فى بورصة الأوراق المالية ضمن مؤشر EGX100 تمثل 432 مشاهدة خلال الفترة من عام 2013 وحتى 2021 واعتمادًا على OLS و GMM، أظهرت نتائج التحليل الإحصائى وجود تأثير سالب للقدرة الإدارية على قابلية التقارير المالية للقراءة. إضافة إلى أن المنافسة في سوق المنتج لها تأثير سالب على قابلية التقارير المالية للقراءة. بينما تظهر النتائج أن المنافسة في سوق المنتج تخفف من التأثير السالب القدرة الإدارية على قابلية التقارير المالية للقراءة في كل من نماذج OLS و GMM. تؤكد الإختبارات الإضافية على التأثير الموجب للمنافسة في سوق المنتج على العلاقة بين القدرة الإدارية وقابلية التقارير المالية للقراءة.

الكلمات المفتاحية: المنافسة في سوق المنتج، القدرة الإدارية، قابلية التقارير المالية للقراءة.

1. Introduction

Admittedly, financial reports are a vital resource of information for capital markets. Hence, Hesarzadeh & Rajabalizadeh (2019) and Dalwai et al. (2021) confirm a significant positive association between readability and informational quality; thus, readability has been a priority for all stakeholders' interests. Consequently, in recent years, regulators and corporate stakeholders, especially financial analysts and consultants, have paid special attention to the readability of annual reports (Bashirimanesh & Arefmanesh, 2023; Rahman et al., 2023).

Numerous literatures have examined the various consequences of the readability of financial reports. For instance, Arora & Chauhan (2023) reveal that readable financial reports attract foreign investments. Further, relying on easier annual reports improves firm transparency and decreases information asymmetry, which in turn enables them to efficiently evaluate and monitor managerial opportunistic behavior (Hassan et al., 2019). As a result, it's critical to understand and research some of the factors that contribute to financial reports' readability as well as their benefits.

Multiple determinates are influencing the readability of annual financial reports, which continue to attract research interest, especially with advancements in the business environment and pressure to improve corporate disclosures (Gosselin et al., 2021; Machokoto et al., 2022). For example, Lim et al. (2018) investigate the impact of business strategy on financial report readability, IFRS adoption (Jang & Rho, 2016; Hidayatullah & Setyaningrum, 2019), ownership structure (Shandiz et al., 2022), earning management (Arora & Chauhan, 2023), and management characteristics (Salehi et al., 2020; Seifzadeh et al., 2021).

This paper contributes to this literature by exploring one of the in-depth effects of readability, consistent with the call to open new horizons for reducing the reader's difficulties in reading disclosures and to construct more accurate tests such as competition and managerial ability (Hesarzadeh et al., 2020; Bashirimanesh & Arefmanesh, 2023; Gutiérrez Ponce et al., 2023). It examines if the rivalry in the product market serves as an external mechanism for reinforcing management and whether there is a connection between a firm's managerial skills and the level of competition it confronts. In other terms, how competition affects the managerial ability to explain the level of readability.

García-Meca & García-Sánchez (2018) show that firms with more able managers can play a vital role in limiting the likelihood of financial reporting fraud and achieving financial reporting quality. Managers are more knowledgeable and have expertise in their business environment, and they have better awareness of the benefits of readability. These firms possess stronger human capital, which can reduce information asymmetry and effective internal control (Abernathy et al., 2018; Garg et al., 2022; Westfall & Myring, 2022). In addition, Hasan (2020) confirms that firms with high managerial ability are able to face their constraints and then improve their financial performance.

Despite the general agreement on the positive aforementioned effect, Garg et al. (2022) demonstrate the "dark" side of upper-level managers, who could behave opportunistically as a result as overinvestment increases cash and resources under management's control. Accordingly, managers try to achieve their interests, such as maximizing their rewards and obtaining more managerial power and prestige (Tinaikar & Xu, 2023). Thus, managers might use readability as a tool to manipulate stakeholders' perceptions of the firm's risk, particularly investors, to serve their interests (Gosselin et al., 2021).

According to several studies, such as (Datta et al., 2013; Majeed et al., 2018; Kim et al., 2019; Asiri et al., 2020), competition in the product market competition(PMC)can play a governance mechanism, discipline management, decrease information asymmetry, reduce agency conflicts, and increase transparency. Correspondingly, PMC firms may have less readability and greater incentives to hide unfavorable information. It increases managerial opportunism, resulting in an opaque information environment (Majeed et al., 2018). Depending on both points of view, this paper investigates the effect of competition on financial reporting quality.

Despite extensive studies in the literature on the implications of readability and PMC, there are few studies that explore readability determinants, especially if they are derived from managerial ability or PMC. The researcher aims to explore the moderating effect of PMC on the association between managerial ability and readability, so there are no previous studies exploring the role of PMC in the association between managerial ability and readability in developing markets such as Egypt. As a result, this study is important to investors, financial analysts, and regulators; therefore, this paper contributes to investigating empirically the moderation effect of PMC on the association between managerial ability and readability in 48 Egyptian firms via both OLS and GMM during the period 2013–2021. There are some issues covered: (1) Is there an association between managerial ability and readability in Egyptian companies? (2) Is there an association between PMC and readability? (3) Is there a moderation role of PMC in the associations between managerial ability and readability?

The remaining parts of the study are structured as follows to accomplish that: Section 2 covers the theoretical background and develops the research hypotheses. Section 3 clarifies data and research design and methodology. Section 4 demonstrates the analysis of empirical data and conducts further tests. Finally, section 5 presents our conclusions, limitations, and future research.

2. Literature Review and Hypotheses Development

2.1 The effect of managerial ability on financial reporting readability

Dalwai et al. (2021) indicate that financial reporting readability is an important factor that determines the success of a firm's reporting quality and the effectiveness of communication with its stakeholders.

In the foreground, readability is defined as the transparency and understandability of the annual report, including simple business language, effective use of materiality, rearranging of note disclosures, and shortening page length to avoid overloading information. This helps to understand the numbers and figures that present great financial information about the firm's financial performance, resulting in minimized agency costs and higher firm value. In addition, one of the methods of reducing the transparency of the information environment to hide the firm's bad news is to present complex and less readable financial reports, resulting in increased crash risk and an increased cost of capital. Consequently, policymakers need to be cognizant of these consequences (Lim et al., 2018; Dalwai et al., 2021; Gosselin et al., 2021; Bashirimanesh & Arefmanesh, 2023; Rahman et al., 2023).

As a result of the rarity of related literature, we argue that financial report readability is related to synonyms and opposing terms in business expressions. We identify a synonym that captures the transparency and informational quality communicated by managers. Hence, readability is a critical index to assess the transparency of qualitative information (Tuo et al., 2019). While financial reporting complexity or opacity is the term used in contrast (Li, 2008).

Additionally, managerial ability may be determined by several characteristics. According to Gosselin et al. (2021) and Sahar et al. (2022) these characteristics, such as skills or expertise, gender, motivations, and the objective of the reports, could influence the level of readability. A business education background can also affect their firm's policies and strategies by providing top executives with professional financial reporting knowledge and training them in business ethics for communicating financial information (Tuo et al., 2019).

According to agency theory, competent managers and a high-quality information environment at the business can reduce managers' opportunistic behaviors and maximize earnings quality (Imeni et al., 2021; Bashirimanesh & Arefmanesh, 2023). Moreover, García-Meca & García-Sánchez (2018) and

Wang et al. (2023) both support the idea that managerial abilities play a vital role in limiting the likelihood of financial reporting fraud and achieving financial reporting quality.

According to Daromes & Ng (2022), managerial ability has a positive and significant influence on reporting quality in general and higher accuracy in disclosures for legitimation purposes in particular (Chen & Chen, 2020). Moreover, Noh & Park (2022) indicate that more able managers will state their superior performance in such a manner that minimizes readers' time and effort to extract relevant information because they seek to maximize their rewards. Hence, readability is more achievement with upper managerial ability. Also, upper-level managers have a better understanding of the value of readability and have more expertise in firm activity and the operational environment.

According to the same view, Yan et al. (2021) find that less able managers are willing to opportunistically manipulate the firm's annual report to enhance their reputations. This effect is magnified for younger and shorter-tenured managers and firms with more intensive monitoring.

More specifically, female CEOs, especially older female CEOs, are significantly positively associated with readability, because of their distinctive characteristics, such as risk aversion, strengthened governance, and ethical behavior that reduce opportunistic behavior. (Sahar et al., 2022). The political connections can weaken the impact of management ability on the probability of fraud by reducing firms' financial pressure (Wang et al., 2017).

Despite the general agreement of the positive aforementioned effect, Garg et al. (2022) indicate the dark side of upper level managers, who may involve in opportunistic behavior. Therefore, Ahmad et al. (2022) found that increase managerial ability resulted in higher fraudulent financial statements. Some studies justify the claim that political connections have a negative impact on the positive influence of managerial ability on fraudulent statement fraud. Additionally, there is a negative correlation between pay inequality in top management teams and readability, at least in part because it generates feelings of unfairness and worsens the information environment, which manifests in longer or less readable financial reports (Ahmad et al., 2022; Park, 2023). Based on the aforementioned evidence, In light of the illustration above, this research develops the following hypotheses:

H_1: Managerial ability significantly affects financial reporting readability.

2.2. The impact of product market competition on financial reporting readability.

According to Babar & Habib (2021) after reviewing the consequences of PMC in accounting, they clarify that competition affects financial reporting quality as a general matter without determining specific characteristics except for comparability.

PMC has become increasingly intense due to globalization. According to agency theory, the literature broadens our understanding of the effect of competition on firms' information environment, and firm opacity and focuses on exploring the links between PMC and financial reporting quality (Majeed et al., 2018; Babar & Habib, 2021; Rahman et al., 2023).

Although PMC has been identified as one of the most effective corporate governance tools for maximizing firm value, Babar & Habib (2021) clearly show a lack of conclusive evidence regarding the relationship between PMC and financial reporting quality. Furthermore, several studies provide conflicting results, while the opposite findings are also documented by other researchers. As a result, market competition has significant implications (Babar & Habib, 2021).

The first view clarifies the negative effect of PMC on financial reporting quality and its justifications. A higher level of PMC may encourage a firm to increase information opacity to make reports less readable. Especially for firms that are subject to credit constraints, have a high PMC, and have high volatility in returns, These firms are more likely to have accounting irregularities and a higher level of information asymmetry, which increases the incentive to manipulate earnings (Markarian & Santalo, 2014; Salehi et al., 2020; Allee et al., 2021; Machokoto et al., 2022). This result is consistent with the notion that competition pressure increases managerial incentives to manage earnings due to their career concerns (Shi et al., 2018). This negative effect is more pronounced for firms with a higher level of trade secrecy and R&D-intensive firms (Rahman et al., 2023).

Firms with higher PMC tend to avoid sharing private information related to achieving a competitive advantage. Thus, managers will have less opportunity to hide critical information (Salehi et al., 2020). Furthermore, Arora & Chauhan (2023) confirm that firms with less competitive industries are more noticeable due to the readability benefits, in addition to eliminating informational asymmetry by lowering information processing costs and improving the information environment between firms and stakeholders (Salehi et al., 2020).

An alternative view is that PMC has a positive effect on readability for a variety of reasons, including that PMC may act as a governance mechanism for corporate risk-taking (Chou et al., 2011; Salehi et al., 2020), and firms with a high intensity of PMC have significant consequences for information efficiency in financial markets. Thus, it is associated with greater analyst coverage and higher forecast accuracy and consistency (Haw et al., 2015; Hsu et al., 2017).

Firm information opacity decreases (increases readability) when competition rises. Due to competition, disciplined managers reduce agency conflicts and increase economic and information efficiency through increased financial reporting accuracy (Wang & Chui, 2015; Chen et al., 2020; Rahman et al., 2023). Additionally, competitive industries are distinguished from monopolistic industries in that they enhance incentives by offering information on performance evaluation (Karuna, 2007). Based on the aforementioned evidence, in light of the illustration above, this research develops the following hypotheses:

H_2: PMC significantly affects financial reporting readability.

2.3 Product market competition as a moderator

This study argues that competition may have two opposing consequences for managerial behavior. Hence, intense competition makes managers more disciplined and thus reduces managerial slack to enhance firm value. Nevertheless, other recent studies find that competition can also motivate managers to take excessive risks and act unethically (Karuna, 2007; Shi et al., 2018).

Competitiveness can influence management skills and the degree of readability or opacity of financial reporting, depending on the product market (Babar & Habib, 2021). The market can more successfully supervise managerial decisions when the information environment is richer (Garg et al., 2022). Depending on the circumstances, managers may be motivated to hide good news in particular circumstances, such as intensive competition in the product market. This intense competition prompts managers to limit the information they share with competitors (Datta et al., 2013; Kim et al., 2019).

Babar and Habib (2021) identify PMC as an external governance instrument that interacts with internal governance systems in both a substitutive and complementary way. Therefore, competition can also increase the cost of observing managerial performance. Moreover, managers are less likely to divert corporate resources towards private rents when competition acts as an instrument of investor protection (Tinaikar & Xu, 2023). PMC can motivate management to improve operational efficiency and increase reliability. As a result, it may mitigate agency conflicts (Chen et al., 2020).

Upper-level managers invest more in R&D compared to capital expenditures, which has a significant positive effect on firm value when facing competitive threats and risks (Yung & Nguyen, 2020). These managerial abilities are even more important in firms and sectors where there is competition. García-Meca & García-Sánchez (2018) show these industries have large informational asymmetries and complexities. As a result, competition reduces risk-taking since it makes managerial decisions more obvious (Salehi et al., 2020).

Based on the foregoing, Hesarzadeh et al. (2020) show that readability depends on both the industry circumstances and the managerial level. This study postulates that PMC has a significant effect on the relationship between managerial ability and readability. We deepen our analysis of the link between managerial ability, competition, and readability by examining how firm-level governance affects this phenomenon.

To achieve the main goal of this study, we explored PMC as a moderator effect between managerial ability and one of the vital characteristics of accounting information (readability). Therefore, it investigates the effect of managerial ability (MA) on readability (READ) and the extent to which PMC moderates this association; therefore, we develop the third hypothesis:

H_3: PMC moderates the positive effect between managerial ability and financial reporting readability.

3. Research Design and Methodology

3.1 Sample Selection

The sample includes 48 non-financial Egyptian firms listed on the EGX100 between 2013 and 2021, with a total of 432 observations. In this study, OLS and GMM are used to analyze panel data from financial reports and statements. The EGX100 sample sectors are all included in Table 1. The real estate sector accounts for the majority of the sample (25%), followed by the basic resources sector at about (20.83%), the consumer staples sector at about (18.75%), the consumer discretionary and industrial goods and services sectors at about (12.50%), and the technology, energy, and healthcare sectors at about (2.08%), followed by the media sector at about (4.17%) for each sector.

Table 1: percentage frequency distribution

SE	Frequency	%
Media	18	4.17
Consumer discretionary	54	12.50
Consumer staples	81	18.75
Energy	9	2.08
Healthcare	9	2.08
Industrials goods and services	54	12.50
Technology	9	2.08
Basic	90	20.83
Real Estate	108	25
Total	432	100

3.2 Research Model and Measurement of variables

This paper examines the moderation role of PMC on the association between managerial ability and readability in Egyptian firms via OLS and GMM. The proposed model is as follows:

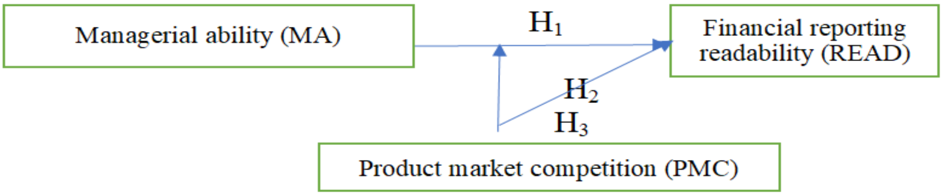

Figure 1: Research Model

$$READ_{i,t} = \beta_0 + \beta_1 MA_{i,t} + \beta_2 PMC_{i,t} + \beta_3 MA_{i,t} * PMC_{i,t} + \sum_k^{\beta} controls_{i,t} + \varepsilon_{i,t} \quad (1)$$

$$READ_{i,t} = \beta_0 + \beta_1 MA_{i,t} + \beta_2 PMC_{i,t} + \beta_3 MA_{i,t} * PMC_{i,t} + \beta_4 FS_{i,t} + \beta_5 LEV_{i,t} + \beta_6 ROA_{i,t} + \beta_7 \text{ Industry fixed effect } + \beta_8 \text{Year fixed effect} + \varepsilon_{i,t} \quad (2)$$

Where READ is the annual report readability measured by Lasbarhets index (LIX) (Abernathy et al., 2018), which is measured by the following equation:

LIX= 100* (B/W) + (W/S) (3)

B = the sum number of words in annual reports (>7) Letters

W= the sum number of words in the notes of annual reports

S = the sum number of sentences in the notes of annual reports

MA is managerial ability measured by score data envelopment analysis (DEA) (Demerjian, 2012: Chen& Chen, 2020: Imeni et al., 2021: Garg et al., 2022: Westfall & Myring, 2022), which is measured by two steps. The first step estimated the firm efficiency using DEA through sales (outputs) scaled by inputs (cost of goods sold, selling expenses, and property, plant, and equipment). The second step is to estimate firm efficiency by excluding the effect of some of the firm characteristics such as firm size, firm age, and market share. Also, some factors impede managerial efforts such as the multiple firm sectors and international business operations through the following Tobit regression model.

$$\boldsymbol{FE_{i,t} = \beta_0 + \beta_1 FA_{i,t} + \beta_2 MS_{i,t} + \beta_3 FCF_{i,t} + \beta_4 FA_{i,t} + \beta_5 FCI_{i,t} + \beta_6 Year_{i,t} + \varepsilon_{i,t}} \quad (4)$$

Whereas:

- FE: Firm Efficiency estimated by the DEA model
- FA: The natural logarithm of the firm total assets at the end of year t.
- MS: Firm market share calculated by the ratio of the sales to the total industry sales in year t.
- FCE: Free Cash Flow is a dummy variable that takes the value (1) if the firm achieves positive free cash flows, and the value (0) if the firm achieves negative free cash flows.
- FA: Firm Age is the natural logarithm of the firm age and is expressed in the number of years the company was listed on the stock exchange until year t.
- FCI: Foreign currency indicator is a dummy variable that takes the value (1) if the firm achieves positive profits when settling foreign currencies in year t.
- Year: an indicator of year t, which is a dummy variable.

The residual residuals are attributed from the regression equation to management, and thus the residuals from the Tobit equation are the degree of managerial ability of the executives, and vice versa.

Product market competition (PMC) is the Herfindahl–Hirschman Index (HHI) measured by the sum of the squared market shares of all firms operating in an industry (Iqbal et al.2022: Datta et al. 2023: Kamarudin et al.2020). As HHI measures the level of industry concentration, we multiply it by 1 to interpret it in terms of competition. The higher the PMC value, the greater the competition. Each firm is then assigned the H-index of its industry to indicate the degree of competition at the firm level.

FS is the logarithm of total assets (Khalil and Rashed, 2023), return on assets (ROA) is determined by the ratio of net income to total assets (Khalil and Rashed, 2023), financial leverage (LEV) measured total debt scaled by total assets (Shehata and Rashed, 2021: Khalil and Rashed, 2023).

4. Empirical analysis

4.1. Descriptive analysis

Table 2. Descriptive statistics

Variables	Obs	Mean	Std. Dev.	Min	Max	Skew.	Kurt.
READ	432	44.28	2.671	40.64	47.65	-.111	1.518
MA	432	.584	.117	.288	.813	-.454	2.624
HH	432	1.42	.52	.838	2.405	.781	2.25
FS	432	21.30	1.76	18.35	24.47	.016	2.082
LEV	432	.204	.166	0	.6	.808	2.835
ROA	432	.073	.081	-.06	.24	.488	2.495

Descriptive statistics contribute to exploring all variables' relevance in the regression model during the period 2013–2021. The descriptive statistics for each variable included in the regression are shown in Table 2. The mean value of readability (READ) is positive (44.28), which indicates that Egyptian firms have high annual readability prone. The mean value of managerial ability (MA) is positive (0.584). Also, the descriptive statistics show that the mean value of PMC measured by the HH index is 1.42 in addition to the average for FS, LEV, and ROA are 21.30, 0.204, and 0.073, respectively.

PMC, readability, managerial ability, firm size, and financial leverage without a return on assets are consistent and identical in the Egyptian market, indicating that companies would remain stable between 2013 and 2021.

4.2. Correlations matrix

Table 3. Correlations matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	VIF
(1) READ	1.00						
(2) MA	-.095*	1.00					1.10
	(.049)						
(3) HH	.077	-.061	1.00				1.01
	(.109)	(.206)					
(4) FS	-.146*	.292*	-.065	1.00			1.30
	(.002)	(.00)	(.178)				
(5) LEV	.037	.066	-.093	.362*	1.00		1.16
	(.444)	(.172)	(.053)	(.00)			
(6) ROA	-.056	.060	-.070	.234*	.138*	1.00	1.06
	(.245)	(.216)	(.148)	(.00)	(.004)		
*** p<0.01, ** p<0.05, * p<0.1							

The correlation matrix for each study variable is shown in Table 3. Results refer to a negative correlation between managerial ability (MA) and readability (READ), while there is no correlation between PMC (HH index) and readability but there is a negative correlation between firm size and readability. Contrarily, there is no correlation between financial leverage, return on assets, and readability. According to the variance inflation factors (VIF), all values are smaller than 10, which indicate that there is no multicollinearity issue.

Table 4: Diagnostics Tests

Diagnostics		Coef.
Breusch-Pagan	chi2(1)	0.81
	Prob > chi2	0.37
Ramsey RESET	F (3, 405)	1.43
	Prob > F	0.23
Unit-Root	Adjusted t	–3.12
	Prob	0.00
Wooldridge	F (1, 47)	3.41
	Prob > F	0.07

Table 4 shows that there is homoscedasticity because the Chi2 value for READ is 0.81 and the probability value is 0.37 (>0.05). Also, there is no omitted variable problem because the f-value for READ is 1.43 and the probability value is 0.23 (>0.05). While the unit root test for READ is -3.12 and the likelihood value is 0.00 (<0.05) therefore there is a stationary time series. According to the Wooldridge test, the f-value is 3.41 and the probability value is 0.07 (>0.05), so there is no serial correlation.

4.3. Regression analysis with OLs and GMM

Table 5: Regression analysis with OLs and GMM

Variable	OLS	GMM
MA	-8.739**	-6.662**
HH	-3.040**	-1.949**
HH*MA	4.242**	6.216**
FS	0.266**	1.040**
LEV	-1.806*	-2.374*
ROA	-0.324*	-5.848*
_cons	52.37***	24.65***
N	432	432
F-Test	6.925	
Prob > F	0.000	
Wald chi2(6)		188.11
Prob > chi2		0.000
R^2	.28	
Adj R^2	.24	
AR1 (Pr > z)		0.000
AR2 (Pr > z)		0.503
Sargan (Prob > chi2)		0.223
Hansen (Prob > chi2)		0.323
legend: * p<0.05; ** p<0.01; *** p<0.001		

Table 5 shows both managerial ability (MA) and PMC (HH) explain financial reporting readability in 48 Egyptian firms within the period between 2013-21 by 28% (R^2 = 0.28). GMM model has presented accrue due to the probability value of AR (2) is more than .05 in addition to both the p-value of Hansen and Sargan are higher than 0.10 and then readability model has fit model. Results refer to higher managerial ability leads to decrease in annual reporting readability. Also, firms with higher PMC related to lower readability at the 1% significant level in both OLS and GMM. Table 5 highlights the moderation role of PMC on the association between managerial ability and readability in both OLS and GMM models. Also, both financial leverage (LEV) and return on assets (ROA) have negatively effect on financial reporting readability at 5% level, while FS has positively effect on readability at 1% level in both OLS and GMM models.

4.4. Robustness Test

Table 6. Robustness Test

Variable	OLS	GMM
MA	-2.350**	-4.661**
Lerner	-1.281**	-.956**
Lerner*MA	.246*	.383*
FS	-.282**	-.153**
LEV	1.592*	1.72*
ROA	.763	.166
_cons	47.75***	50.37***
N	432	432
F-Test	7.48	
Prob > F	0.00	
Wald chi2(7)		151.53
Prob > chi2		0.000
R^2	0.30	
Adj R^2	0.26	
AR1 (Pr > z)		0.000
AR2 (Pr > z)		0.257
Sargan (Prob > chi2)		0.123
Hansen (Prob > chi2)		0.207
legend: * p<0.05; ** p<0.01; *** p<0.001		

Table 6 demonstrates how to determine the role of PMC is resilient by substituting the Lerner index for the competition by calculating the price cost margin (PCM) of each firm through profit scaled by sales for each firm and then subtracting the industry mean PCM from a firm's PCM to calculate its industry adjusted price-cost margin (IPCM). The greater value of IPCM indicates greater market power and low competition. Table 6 shows that MA and Lerner have a negative effect on financial reporting readability at the 1% level. Also, in both the OLS and GMM models, PMC has a positive impact on the relationship between managerial ability and readability. Table 6 shows that control variables aren't consistent with Table 5, showing that firm size has a negative effect on financial reporting readability at the 1% level; in addition to financial leverage has a positive effect on financial reporting readability at the 5% level while return on assets hasn't effect on financial reporting readability in both OLS and GMM models.

4.5. Discussion

This paper developed the main hypothesis, which examined the moderation role of PMC in the association between managerial ability and financial reporting readability in Egyptian firms. The empirical findings indicated that a higher managerial ability led to a decrease in annual reporting readability. Also, firms with higher PMC have lower readability at the 1% significant level. The OLS and GMM models indicated that PMC had a positive impact on the relationship between managerial ability and readability. In this significant section, it will summarise how these results agreed and differed from the literature review.

According to agency theory, García-Meca & García-Sánchez (2018) shows that firms with more able managers can play a vital role in limiting the likelihood of financial reporting fraud and achieving financial reporting quality. As a result, they are more knowledgeable about their business and operating environment, and they better understand the benefits of readability. Additionally, they enable firms to be less likely to obfuscate their true financial performance. Thus, these firms possess stronger human capital, can reduce information asymmetry, and are better able to maintain the systems and controls underlying the company's financial information (Abernathy et al., 2018;Hasan, 2020; Garg et al., 2022; Westfall & Myring, 2022). Furthermore, less able managers are willing to opportunistically manipulate the firm's annual report to enhance their reputations (Yan et al., 2021).

Despite the general agreement on the positive aforementioned effect, Garg et al. (2022) demonstrate the "dark" side of more able managers, who could act opportunistically as a result as overinvestment increases cash and resources under management's control. As a result, managers try to achieve their interests, such as maximizing their rewards and obtaining more managerial power and prestige (Tinaikar & Xu, 2023). Thus, managers might use readability as a tool to influence how stakeholders, notably investors, perceive the risk of the firm to serve their interests (Gosselin et al., 2021). Particularly, when pay inequality exists in top management (Ahmad et al., 2022; Park, 2023).

According to several studies, two points of view investigate the effect of PMC on financial reporting quality. such as (Datta et al., 2013; Majeed et al., 2018; Kim et al., 2019; Asiri et al., 2020) found that competition in the product market can play a governance mechanism, discipline management, reduce information asymmetry and agency conflicts, and increase transparency. Hence, firm information opacity decreases (increases readability) when competition rises (Wang & Chui, 2015; Chen et al., 2020; Rahman et al., 2023). Correspondingly, PMC firms may have less readability and greater incentives to hide unfavorable information. It increases managerial opportunism, resulting in an opaque information environment. Thus, managerial incentives to manage earnings are increasing due to their career concerns (Majeed et al., 2018; Shi et al., 2018).

The full phenomenon that is examined in this study is how competition affects the managerial ability to explain the level of readability. This study argues that competition may have two opposing consequences for managerial behavior (the effect of managerial ability on financial reporting readability). The first view sees PMC as an external governance instrument that interacts with internal governance systems in both a substitutive and complementary way to improve operational efficiency and increase the reliability of financial statements (Chen et al., 2020; Babar and Habib, 2021). Further, the market can more successfully supervise managerial decisions. As a result, it can mitigate agency conflicts and costs (Garg et al., 2022). In contrast, under intensive competition conditions in the product market, managers may be motivated to hide good news. This intense competition prompts managers to limit the information they share with competitors (Datta et al., 2013; Kim et al., 2019).

5. Conclusion

This paper explores the moderated role of PMC in the association between managerial ability and financial reporting readability in 48 Egyptian firms listed in the Egyptian context. This paper measured PMC by the HH index in addition to the Lerner index in robustness checks to get the best results via OLS and GMM. Also, this paper measured financial reporting readability by the Lasbarhets index (LIX), while managerial ability was measured by score data envelopment analysis (DEA). The findings show that PMC has a positive impact on the association between managerial ability and readability. The literature findings provide conflicting results by investigating the effect of managerial ability and PMC on readability. Results support that both managerial ability and PMC have a negative effect on financial reporting readability in both OLS and GMM models. PMC contributes to supporting the association between managerial ability and readability.

This study provides useful insights to stakeholders as it clarifies that efforts to improve annual report readability are particularly important in competitive industries because both competitive circumstances and financial reporting readability depend on disclosure quantity and quality. As a result, and according to resource-based theory, the vital determinant controlling these variables is managerial ability. Based on this, there is importance for future research on managerial incentives as well as qualifications, compensation, and rewards for more able managers, as well as studying the most important characteristics of managerial ability in the face of competitive threats.

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