

Original Research Article

The Impact of Managerial Ability on Debt Contracting Constraints of Borrowing Firms

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Managerial ability can serve as a balancing factor in mitigating informational asymmetries within credit contracts between firms and capital providers. This study investigates the impact of managerial ability on debt contract constraints. Using data from 120 listed firms over the period 2016–2023, the research hypotheses are tested employing a pooled regression approach.

The findings indicate that managerial ability has a significant effect on the dispersion in borrowing interest rates. The results further suggest that higher managerial ability leads to a reduction in contractual constraints. In addition, evidence shows that firms managed by more capable managers are more likely to rely on short-term financing strategies.

Higher managerial ability can signal favorable future performance and enhance information transparency, thereby leading to more favorable loan terms. In other words, capable managers demonstrate higher efficiency in transforming firm resources into revenues, which improves future performance and cash flows and consequently reduces expected risk.

Keywords: Managerial Ability, Interest Rate Dispersion, Debt Contract Terms, Short-Term Financing

JEL Classification: G32, G21, D82

1 Introduction

Bank loans constitute a primary source of financing for many firms, including large corporations (Graham et al., 2008; Hasan et al., 2017). Prior studies have predominantly focused on firm-level determinants that influence loan contract terms (Francis et al., 2020; Hasan et al., 2017). Given that firms are managed by executives who significantly influence corporate decision-making, evaluating managerial ability is essential for understanding firm success (Bertrand and Schoar, 2003).

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Donelson et al. (2017) show that lenders rank “management character, reputation, and experience” as the third most important factor in lending decisions, even ahead of traditional firm characteristics such as leverage, liquidity, and profitability. Managerial ability reflects human capital (Francis et al., 2020) and is considered one of the most important intangible assets of a firm (Gaines-Ross, 2003). In this regard, Rahimi et al. (2020) document that intangible capital plays a significant role in firm valuation as it represents the firm’s capacity to generate economic benefits. Consistent with this perspective, Francis et al. (2020) argue that intangible capital is value-relevant in capital markets, accounting for approximately 50% to 75% of the total market value of publicly traded firms (Hall, 2001).

This study contributes to the literature by examining how managerial ability influence the structuring of debt contracts, thereby exploring an important intangible dimension of firm value creation.

Hasan et al. (2017) demonstrate that favorable loan terms are largely driven by lower default risk. However, a firm’s default risk depends largely on the quality of information disclosed in its financial reports. Higher information risk requires greater monitoring efforts; thus, banks incur higher monitoring costs when lending to firms with elevated information risk (Graham et al., 2008).

Furthermore, conflicts of interest between different types of investors—particularly between debt holders and shareholders—constitute another major determinant of debt costs. Managers may have incentives to transfer wealth from debt holders to shareholders after obtaining financing (Mueller and Inderst, 1999). Consequently, lenders consider managerial ability as a fundamental factor in determining loan terms (Kim et al., 2019). Prior research, including Aminimehr et al. (2024) and Demerjian et al. (2012), documents that managerial ability is associated with default risk, information risk, and debt-related agency risk.

However higher managerial ability can signal favorable future performance and enhance transparency, leading to improved loan terms. Choi et al. (2015) show that capable managers are more efficient in converting corporate resources into revenues, thereby improving future performance and cash flows and reducing expected default risk. Shirehzadeh and Ebrahimi-Ghadi (2024) and Baik et al. (2011) provide evidence that greater managerial ability reduces information opacity through higher-quality earnings and more accurate earnings forecasts. Since default risk and information risk are primary determinants of debt costs (Bhojraj & Sengupta, 2003), lenders are expected to offer more favorable contract terms to firms led by more capable managers.

However, Custódio et al. (2013) find that more capable managers are more likely to receive performance-based compensation, which may exacerbate conflicts between managers and lenders (Shaw, 2012). From a motivational perspective, managerial ability enhances self-efficacy and intrinsic motivation, increasing managers' willingness to accept incentive-based compensation schemes. However, such compensation structures may intensify agency conflicts by encouraging risk-taking behavior or short-term performance orientation that may not align with creditors' interests. Lenders therefore incorporate agency costs into lending decisions and may impose stricter covenants to protect their capital. Prior studies also suggest that compensation incentives increase managerial risk-taking and risk-shifting behavior (Brockman et al., 2010).

Previous research, including Hettler et al. (2024), Rashidi (2020), and Aflatooni (2019), primarily examined the role of managerial ability in improving current and future firm performance and enhancing information transparency. Most prior studies emphasize the performance dimension of managerial ability and its direct effect on financial outcomes.

This study extends the literature by investigating managerial ability from the perspective of loan contract design and incentive-based compensation. Additionally, given the influence of managerial ability on accounting information quality and monitoring mechanisms, its indirect effect on expected risk is also considered. Specifically, this research explains how managerial characteristics affect debt costs and how loan contracts reflect default risk and information asymmetry.

Accordingly, examining how managerial ability influences debt contract design provides valuable insights into identifying the risks embedded in lending agreements.

The remainder of the paper is organized as follows. Section 2 reviews the theoretical framework and develops the research hypotheses. Section 3 describes the data and empirical methodology. Section 4 presents and discusses the empirical results. Section 5 concludes and outlines the main policy implications.

2 Theoretical Background

Capable managers possess a superior understanding of technology, industry trends, and customer demand. Managerial ability influences key operating policies, including investment, financing, and other value-relevant activities that directly affect firm value (Demerjian et al., 2015). Demerjian et al. (2013)

further argue that more capable management teams have a deeper understanding of future economic conditions and earnings volatility.

Demerjian et al. (2012) define managerial ability as managers' efficiency, relative to industry peers, in transforming firm resources into revenues. More capable managers have a stronger grasp of technological developments and industry dynamics and are better positioned to forecast product demand. They are also more likely to invest in value-enhancing projects and manage employees efficiently. In the short term, such managers are expected to generate higher revenues from a given level of resources or achieve a given revenue level using fewer resources.

Managerial ability, as a dimension of human capital, plays a crucial role in firm success (Shuynina & Medvid, 2009). Prior studies document that managerial ability significantly affects various corporate decisions, including investment policies (Bertrand & Schoar, 2003), initial public offerings (Chemmanur & Paeglis, 2005), executive compensation (Custódio et al., 2013), accounting choices (Demerjian et al., 2013), auditor judgment (Krishnan & Wang, 2015), and tax decisions (Francis et al., 2020). Given its substantial influence on corporate policies and outcomes, shareholders attach considerable value to capable managers.

Chemmanur and Paeglis (2005) find that IPOs of firms managed by more capable executives exhibit greater efficiency. Demerjian et al. (2012) show that the capital market reacts positively (negatively) to the departure of low-ability (high-ability) managers. Similarly, Hayes and Schaefer (1999) demonstrate that differences in managerial ability can lead to changes in shareholder wealth. Francis et al. (2020) report a positive association between managerial ability and earnings value relevance. Cornaggia et al. (2017) find that managerial ability is associated with lower credit risk and better credit ratings.

Prior literature (e.g., Bhojraj & Sengupta, 2003; Chava et al., 2009) suggests that lenders' assessment of borrower credit risk depends primarily on the following three factors:

- 1) Expected future cash flows the ability of borrowers to generate sufficient cash flows to service debt obligations;
- 2) Information risks the quality and quantity of information available to assess default risk;
- 3) Agency costs of debt costs arising from managerial incentives to pursue self-interested behavior or wealth transfer that reduces expected cash flows.

In the following sections, we explain how managerial ability may affect credit contract design through these channels.

2.1 Managerial Ability and Loan Spread Dispersion

Traditional banking theory posits that default probability is the primary determinant of loan pricing. Firms with lower default risk are able to borrow under more favorable pricing terms (Hasan et al., 2017). Prior literature indicates that managerial ability influences firm performance and default risk.

Chemmanur and Paeglis (2005) show that high-ability managers select more appropriate investment projects and execute them more efficiently. Firms led by capable managers exhibit superior operating performance and therefore lower expected default risk. These benefits also extend to financially distressed firms. For example, Leverty and Grace (2012) show that managerial ability reduces both the duration of financial distress and the likelihood and costs of bankruptcy. Demerjian et al. (2012) document that replacing low-ability managers with higher-ability managers improves firm performance. Choi et al. (2015) further provide evidence of a positive association between managerial ability and future cash flows.

Information opacity increases monitoring costs for lenders (Sufi, 2007). Information risk is a key determinant of borrowing costs, and greater transparency facilitates more timely and accurate information transfer regarding firm conditions. Barth et al. (2008) find that firms with higher earnings quality face lower bank loan costs. Graham et al. (2008) show that lenders increase loan spreads following financial restatements, reflecting higher perceived information risk.

Greater dispersion in loan spreads strengthens lenders' bargaining power in renegotiations (Gorton & Kahn, 2000) and compels firms to accept higher borrowing repayment, thereby limiting their ability to undertake alternative investments that could be detrimental to creditors.

Recent research on managerial ability (e.g., Saghafi et al., 2023) shows that capable managers enhance information transparency. Baik et al. (2011) document a positive association between managerial ability and the frequency and accuracy of earnings forecasts.

However, competing agency-based arguments suggest that managers act primarily in shareholders' interests and may pursue policies that transfer wealth from creditors to shareholders after debt issuance (Smith and Warner, 1979). Lenders may therefore incorporate higher interest rates to compensate for expected monitoring costs. Furthermore, more capable managers may have stronger incentives to seek performance-based compensation (Agyapong et

al., 2023; Milbourn, 2003), potentially encouraging riskier investment strategies and increasing debt related agency costs. Adams and Mansi (2009) find that employing highly capable managers may reduce bondholder value, as such managers tend to implement riskier policies, including high-cost financing strategies.

Hypothesis 1: Managerial ability has a negative and significant effect on loan spread dispersion.

2.2 Managerial Ability and Debt Covenants

Debt contracts impose covenants that restrict borrower behavior. Lenders may impose stricter contractual terms to better control borrowers. Kim et al. (2019) find that increased disclosure reduces risk and lowers the need for restrictive covenants. Similarly, Graham et al. (2008) show that lenders impose more covenants when information risk increases. Firms with more predictable earnings exhibit lower information risk and face fewer contractual restrictions (Molaei et al., 2019).

Borrowers with strong credit ratings typically obtain loans with fewer covenants, whereas high-risk borrowers face stricter contractual terms (Berger & Udell, 1990). Graham et al. (2008) show that firms with higher market-to-book ratios and lower default risk receive more favorable contract terms. Hasan et al. (2017) document a negative association between firm performance and covenant intensity.

Nevertheless, covenants are an effective governance mechanism used by lenders to mitigate agency risk (Manh et al., 2025). Gorton and Kahn (2000) argue that initial contracts enhance lenders' bargaining power in renegotiation. Due to concerns such as asset substitution, overinvestment, and claim dilution, lenders have incentives to impose restrictive covenants. Smith (1993) categorizes covenants as positive (e.g., minimum net worth or working capital requirements) or negative (e.g., restrictions on asset sales, excessive leverage, or dividend payments).

Agency theory suggests that managers may act in their own interests at the expense of shareholders (Jensen & Meckling, 1976), and lenders are particularly concerned about inefficient resource use in weak governance environments (Dyck & Zingales, 2004). Firms may therefore face higher financing costs or stricter covenants to mitigate agency costs (Marcelin & Mathur, 2014).

However, Fama (1980) argues that labor market competition disciplines managers through reputation concerns. Misuse of funds may damage managerial reputation and future career prospects (Tang et al., 2024). Hence,

agency problems may be less severe in firms led by capable managers, leading to fewer contractual restrictions.

Hypothesis 2: Managerial ability has a negative and significant effect on covenant intensity.

2.3 Managerial Ability and Short-Term Financing

Debt maturity is a critical feature of credit contracts. Given that managerial ability is associated with superior future performance, capable managers may prefer short-term debt, expecting to refinance at better rates if favorable news materializes. This argument aligns with Diamond (1991), who suggests that high-quality firms prefer short-term debt due to refinancing flexibility.

From lenders' perspective, short-term debt serves as an effective monitoring tool (Stulz, 2001). Rajan and Winton (1995) show that short-term debt allows creditors to monitor managers more efficiently. If capable managers undertake riskier projects and increase debt agency costs, lenders may prefer extending short-term debt, especially when agency concerns are pronounced.

Diamond (1991) also predicts that very low-rated firms rely on short-term borrowing due to high long-term financing costs. Empirical evidence supports this claim. Shang (2021) shows that firms with greater information asymmetry disclose higher levels of short-term debt. Stohs and Mauer (1996) find that lower firm risk increases the likelihood of long-term debt usage. Berger et al. (2005) document an inverse relationship between debt maturity and information asymmetry.

Competing arguments suggest that firms with more capable managers, having lower information risk, may be more likely to obtain long-term financing. Nonetheless, there are at least two reasons why firms with capable managers may use more short-term debt.

First, talented managers may better identify favorable demand trends and investment opportunities (Li et al., 2018). Superior operational efficiency enables them to exercise growth options by converting them into value-enhancing projects. Myers (1977) argues that long-term debt overhang may lead to suboptimal investment decisions; short-term debt maturing before growth options expire mitigates this problem.

Second, talented managers may face lower liquidity risk from short-term debt (Diamond, 1991), given their informed understanding of business prospects and industry conditions (Baik et al., 2011). Cornaggia et al. (2017) show that managerial ability reduces credit risk and improves credit ratings. The combined effect of mitigating underinvestment problems and reducing

maturity concerns may encourage capable managers to adopt shorter debt maturities (Shang, 2021).

Hypothesis 3: Managerial ability has a positive and significant effect on short-term financing.

3 Research Methodology

3.1 Model Specification and Variables

This study investigates debt contract constraints based on managerial ability. To test the research hypotheses, the following regression models are employed.

Model (1) is specified to test the first hypothesis.

$$SPREAD_{it} = \beta_0 + \beta_1 MA_{it} + \beta_2 Acc_Quality_{it} + \beta_3 Audit_Q_{it} + \beta_4 ROA_{it} + \beta_5 MTB_{it} + \beta_6 Perform_{it} + \beta_7 Cons_{it} + \beta_8 STDE_{it} + \beta_9 Size_{it} + \beta_{10} Loss_{it} + \beta_{11} Lev_{it} + \varepsilon$$

Model (2) is specified to test the second hypothesis.

$$Loanterms_{it} = \beta_0 + \beta_1 MA_{it} + \beta_2 Acc_Quality_{it} + \beta_3 Audit_Q_{it} + \beta_4 ROA_{it} + \beta_5 MTB_{it} + \beta_6 Perform_{it} + \beta_7 Cons_{it} + \beta_8 STDE_{it} + \beta_9 Size_{it} + \beta_{10} Loss_{it} + \beta_{11} Lev_{it} + \varepsilon$$

Model (3) is specified to test the third hypothesis.

$$D_MATURITY_{it} = \beta_0 + \beta_1 MA_{it} + \beta_2 Acc_Quality_{it} + \beta_3 Audit_Q_{it} + \beta_4 ROA_{it} + \beta_5 MTB_{it} + \beta_6 Perform_{it} + \beta_7 Cons_{it} + \beta_8 STDE_{it} + \beta_9 Size_{it} + \beta_{10} Loss_{it} + \beta_{11} Lev_{it} + \varepsilon$$

In the specified models:

SPREAD represents loan spread dispersion; *Loanterms* denotes covenant intensity (contractual restrictions); *D_MATURITY* represents short-term financing; *MA* denotes managerial ability; *Acc_Quality* represents accounting information quality; *Audit_Q* denotes audit quality; *ROA* is return on assets; *MTB* represents the market-to-book ratio of equity; *Perform* denotes firm performance; *Cons* represents accounting conservatism; *STDE* captures environmental uncertainty; *Size* denotes firm size; *LOSS* is a loss indicator; *LEV* represents financial leverage.

3.1.1 Dependent Variables

Loan Spread Dispersion (SPREAD): The absolute difference between the firm's loan interest rate and the industry-average loan interest rate.

Debt Restrictive Covenants (COVENANTS) (Loanterms): A binary variable equal to one if the loan agreement contains at least one restrictive covenant (excluding initial collateral requirements), and zero otherwise.

Short-Term Financing (D_MATURITY): a binary variable equal to 1 if the maturity of the debt (or new loans) is less than 60 months (5 years), and zero otherwise (Petkovich & Prevost, 2018).

3.1.2 Independent Variable

Managerial Ability (MA): Managerial ability is measured using the approach developed by Demerjian et al. (2012).

$$\text{Max}_v\theta = \frac{\text{Sales}}{v_1\text{CoG} + v_2\text{SG\&A} + v_3\text{NetPPE} + v_4\text{OpsLease} + v_5\text{R\&D} + v_6\text{Goodwill} + v_7\text{Intan}}$$

In the first stage, firm efficiency is estimated using Data Envelopment Analysis (DEA), where inputs include:

CoG: Cost of Goods Sold, **SG&A:** Selling, General, and Administrative Expenses, **NetPPE:** Net Property, Plant, and Equipment, **OpsLease:** Operating Leases, **R&D:** Research and Development Expenses, **Goodwill:** Goodwill, **Intan:** Net Intangible Assets

The calculated firm efficiency score ranges between zero and one, where one indicates maximum efficiency. Lower values indicate lower firm efficiency.

In the second stage, the following regression model is estimated:

$$\text{Firm Efficiency} = \alpha_0 + \alpha_1\text{Size}_{i,t} + \alpha_2\text{Marketshare}_{i,t} + \alpha_3\text{FCF}_{i,t} + \alpha_4\text{Age}_{i,t} + \alpha_5\text{FCI}_{i,t} + \varepsilon_{i,t}$$

Where:

Firm Efficiency is the overall efficiency score obtained from the first stage; SIZE denotes firm size; Market Share represents the firm's market share; FCF denotes free cash flow; Age represents firm listing age; FCI represents export intensity; The residual term ($\varepsilon_{i,t}$) captures managerial ability (MA).

Thus, managerial ability is defined as the portion of firm efficiency unexplained by firm characteristics.

3.1.3 Control Variables

Accounting Information Quality (Acc_Quality)

Accounting quality is measured using the accrual quality model of Francis et al. (2020):

$$TCA_{j,t} = \alpha_0 + \alpha_1 CFO_{j,t-1} + \alpha_2 CFO_{j,t} + \alpha_3 CFO_{j,t+1} + \alpha_4 \Delta REV_{j,t} + \alpha_5 PPE_{j,t} + \varepsilon_{j,t}$$

Where:

TCA represents total current accruals; *CFO* denotes operating cash flows; *ΔREV* represents change in revenues; *PPE* denotes gross property, plant, and equipment.

The model is estimated annually, and the inverse of the three-year rolling standard deviation of residuals is used as the proxy for accounting information quality.

Audit Quality (Audit_Q): A dummy variable equal to one if the firm's auditor is the Audit Organization or an A-ranked audit firm certified by the Iranian Association of Certified Public Accountants, and zero otherwise.

Return on Assets (ROA): Measured as net income divided by beginning total assets.

Market-to-Book Ratio (MTB): Calculated as the market value of equity divided by the book value of equity.

Firm Performance (Perform): To mitigate earnings manipulation bias, firm performance is measured as the average operating cash flows in years *t* and *t*+1 divided by beginning total assets (Hsu et al., 2017).

Accounting Conservatism (Cons): Accounting conservatism is measured using a regression model based on stock returns (*Ret*), return on equity (*ROE*), and the book-to-market ratio (*B/M*).

$$Ret_{it} = \log Ret_{it} + \log(1 + Roe)_{it} + \log\left(\frac{B}{M}\right)_{it} + \varepsilon_{it}$$

Environmental Uncertainty (STDE): Measured as the three-year standard deviation of sales changes (Anvari Rostami & Kiani, 2016).

Firm Size (Size): Measured as the natural logarithm of the firm's market value of equity.

Loss Indicator (LOSS): A dummy variable equal to one if the firm has reported losses during the past three years, and zero otherwise.

Financial Leverage (LEV): Measured as total liabilities divided by total assets.

3.2 Population and Sample Selection

The statistical population consists of all firms listed on the Tehran Stock Exchange (TSE) during the period 2016–2023.

To enhance comparability, only firms with a fiscal year ending in March (Iranian year-end) are included. Financial institutions, including banks, investment companies, leasing companies, and insurance firms, are excluded due to their distinct financial structures. Firms that changed their fiscal year during the study period are also excluded. Furthermore, only firms with complete and accessible data are retained.

After applying these screening criteria, the final sample consists of 120 firms.

4 Empirical Findings

4.1 Descriptive Statistics

Table 1
Descriptive Statistics of Research Variables

Variable	Mean	Median	Std. Dev.	Max	Min
Debt Covenants	0.278	0.000	0.448	1.000	0.000
Short-term Financing	0.751	1.000	0.432	1.000	0.000
Loan Spread Dispersion	0.039	0.034	0.026	0.137	0.019
Managerial Ability	0.013	0.008	0.074	0.164	-0.079
Market-to-Book	2.162	2.120	0.174	3.927	-0.870
Accounting Information Quality	0.125	0.106	0.074	0.297	0.002
Audit Quality	0.220	0.000	0.414	1.000	0.000
Future Performance	0.036	0.029	0.030	0.261	0.000
Accounting Conservatism	-0.092	-0.002	0.233	0.396	-0.799
Environmental Uncertainty	0.188	0.141	0.177	0.998	0.001
Firm Size	5.854	5.792	0.594	8.520	4.246
Financial Leverage	0.647	0.658	0.209	1.824	0.040
Return on Assets	0.138	0.056	0.225	1.185	-0.403
Loss Indicator	0.093	0.000	0.291	1.000	0.000

Source: Research findings

The mean value of Debt Covenants (0.278) indicates that creditors impose restrictive covenants in only a limited proportion of loan contracts restrictive covenants in loan contracts. The mean of Short-term Financing (0.751) suggests that firms predominantly rely on short-term debt structures. The average Managerial Ability (0.013) reflects managers' contribution to improving firm financial performance through operational efficiency. The

mean Loan Spread Dispersion (0.039) indicates relatively limited variation in loan interest rates compared to the industry average. The mean values of Audit Quality (0.220) and Accounting Information Quality (0.125) suggest relative stability in firms' operating cash flows in recent years. The average Future Performance (0.036) indicates modest liquidity levels across firms. The mean of Accounting Conservatism (-0.092) implies limited application of conservative accounting practices among sampled firms. The average Environmental Uncertainty (0.188) suggests relatively stable sales trends. The mean Financial Leverage (0.647) indicates that a substantial portion of firms' assets is financed through debt.

4.2 Inferential Statistics

Before testing the hypotheses, the F-Limer (Chow) test was conducted to determine whether pooled OLS or panel data estimation is appropriate.

Table 2

F-Limer Test Results

Model	Statistic	p-value	Selected Approach
Model 1	4.042	0.000	Fixed Effects

Source: Research findings

Given the rejection of the null hypothesis, we employ panel data estimation is preferred over pooled regression.

Subsequently, the Hausman test was performed to determine whether fixed or random effects estimation is appropriate.

Table 3

Hausman Test Results

Model	Statistic	p-value	Selected Approach
Model 1	19.092	0.054	Random Effects

Source: Research findings

Since the null hypothesis could not be rejected at conventional significance levels, the random-effects model was selected.

4.3 Hypothesis Testing

First Hypothesis

Table 4

Results of Model (1): Loan Spread Dispersion

Variable	Coefficient	t-Statistic	p-value
Managerial Ability	-0.168	-1.888	0.059
Accounting Information Quality	0.024	2.521	0.011
Audit Quality	-0.002	-1.226	0.220
Return on Assets (ROA)	-0.011	-1.842	0.065
Market-to-Book Ratio	-0.015	-2.714	0.006
Future Performance	0.049	1.910	0.056
Accounting Conservatism	0.008	2.402	0.016
Environmental Uncertainty	-0.008	-1.653	0.098
Firm Size	-0.001	-0.618	0.536
Loss Indicator	0.007	2.457	0.014
Financial Leverage	0.022	4.412	0.000
Constant	-0.033	-3.060	0.002

Source: Research findings

Model Statistics

- R-squared: 0.078
- Adjusted R-squared: 0.060
- Durbin–Watson Statistic: 1.362
- F-statistic: 10.887
- Probability (F-statistic): 0.0000

The coefficient on managerial ability is -0.168 ($t = -1.888$, $p = 0.059$) and is significant at the 10% level ($p = 0.059$). This result supports the first hypothesis, indicating that higher managerial ability significantly reduces loan spread dispersion. The model exhibits an F-statistic of 10.887 ($p = 0.000$) and an adjusted R^2 of 0.060, suggesting acceptable explanatory power.

Second Hypothesis

Table 5
Results of Model (2): Debt Covenants

Variable	Coefficient	z-Statistic	p-value
Managerial Ability	-7.282	-1.994	0.046
Accounting Information Quality	0.315	2.972	0.003
Audit Quality	-1.020	-2.621	0.008
Return on Assets (ROA)	-0.217	-0.898	0.369
Market-to-Book Ratio	-2.231	-1.695	0.090
Future Performance	-0.196	-1.074	0.282
Accounting Conservatism	0.298	1.281	0.199
Environmental Uncertainty	0.363	4.403	0.000
Firm Size	0.112	0.768	0.442
Loss Indicator	-0.540	-2.225	0.026
Financial Leverage	-2.201	-4.079	0.000
Constant	-7.282	-1.994	0.046

Source: Research findings

Model Statistics

- McFadden R-squared: 0.052
- LR Statistic: 65.401
- Probability (LR Statistic): 0.0000

Managerial ability has a coefficient of -7.282 ($z = -1.994$, $p = 0.046$), significant at the 5% level. Thus, the second hypothesis is confirmed: higher managerial ability is associated with fewer contractual restrictions in debt agreements. The McFadden pseudo R^2 is 0.052, and the likelihood ratio statistic is significant ($p = 0.000$), indicating overall model adequacy.

Third Hypothesis

Table 6
Results of Model (3): Short-Term Financing

Variable	Coefficient	z-Statistic	p-value
Managerial Ability	10.986	2.119	0.034
Accounting Information Quality	-0.169	-1.091	0.275
Audit Quality	-0.756	-1.574	0.115
Return on Assets (ROA)	0.277	0.724	0.468
Market-to-Book Ratio	-0.701	-0.320	0.748
Future Performance	-0.641	-2.180	0.029
Accounting Conservatism	-1.391	-4.754	0.000
Environmental Uncertainty	0.373	3.099	0.001
Firm Size	-0.426	-1.149	0.250
Financial Leverage	-0.649	-0.737	0.460
Constant	10.986	2.119	0.034

Source: Research findings

Model Statistics

- McFadden R-squared: 0.034
- LR Statistic: 41.377
- Probability (LR Statistic): 0.0000

Managerial Ability has a positive coefficient (10.986) with a z-statistic of 2.119 ($p = 0.034$), significant at the 5% level. Therefore, the third hypothesis is supported, suggesting that firms with more capable managers are more likely to rely on short-term financing. The McFadden R^2 equals 0.034, and the LR statistic is statistically significant ($p = 0.000$).

Summary of Findings

The empirical evidence suggests that managerial ability plays a significant role in shaping debt contract design:

- 1) It reduces loan spread dispersion, implying improved credit pricing conditions.
- 2) It decreases the likelihood of restrictive covenants.
- 3) It increases the use of short-term debt financing.

These findings highlight the importance of managerial human capital in mitigating information risk, reducing agency conflicts, and influencing lenders' contractual decisions.

5 Conclusion and Recommendations

Overall, this study investigates the impact of managerial ability on debt contracting constraints. The first hypothesis predicts a negative association between managerial ability and the spread of loan interest rates. The empirical findings support this hypothesis and are consistent with the results reported by Baik et al. (2011). Senior executives play a pivotal role in enhancing operational efficiency and firm value, and managerial ability is widely viewed as a determinant of firm performance through the sustainability of current and future cash flows. Creditors, seeking to avoid inefficient investments and protect their claims, monitor managerial behavior to mitigate agency costs. The findings are also aligned with prior evidence (e.g., Baik et al., 2011; Agyapong et al., 2023), suggesting that capable managers improve accounting information quality and investment decision-making, thereby safeguarding creditors' interests and facilitating access to lower-cost financing.

The second hypothesis posits a significantly negative relationship between managerial ability and the use of restrictive debt covenants. The results confirm this prediction. Competent managers possess essential skills, including effective communication, professional experience, and financial expertise, enabling them to navigate challenging financial and operational conditions (Custódio & Metzger, 2014). By reducing information asymmetry, such managers are better positioned to interact with creditors, governmental agencies, institutional investors, and other capital providers (Kaplan et al., 2012). Moreover, capable managers are more likely to identify superior investment opportunities (Lee et al., 2018) and generate greater economic benefits (Chang et al., 2010), thereby convincing creditors and investors regarding the firm's creditworthiness and efficient resource utilization (Chemmanur and Paeglis, 2005). In this context, enhanced managerial ability improves credit relationships and reduces the need for restrictive contractual provisions. These findings are consistent with recent evidence reported by Manh et al. (2025) and Tang et al. (2024).

The third hypothesis examines the relationship between managerial ability and short-term debt financing. The results indicate a positive and statistically significant association. Debt maturity represents a critical dimension of capital structure decisions. Firms face a trade-off when determining debt maturity. On the one hand, shorter maturities allow firms to refinance debt before restrictive provisions are triggered, thereby mitigating underinvestment problems associated with debt overhang (Myers, 1977). On the other hand, concentrating large debt repayments in the near term may increase the risk of inefficient liquidation (Diamond & He, 2014). Debt maturity decisions are

ultimately made by managers who process relevant information and respond strategically to firm-specific conditions. In practice, managerial ability varies considerably across firms, and when confronted with complex financing decisions, higher ability can lead to more efficient policies and more reliable financial outcomes (Baik et al., 2011). In other words, capable managers are better equipped to assess growth opportunities and refinancing risks (Demerjian et al., 2012) and, accordingly, design an optimal debt structure by shortening debt maturity. These results are consistent with Shang (2021).

To extend the current findings, future research may examine the role of internal capital allocation efficiency in shaping debt contract restrictions. Additionally, given the potential monitoring effect of external governance mechanisms, the moderating role of audit quality in this relationship warrants further investigation.

This study is subject to certain limitations. In particular, the measurement of managerial ability relies on an indirect proxy. Since managerial ability is an intrinsic and largely unobservable characteristic, measurement error may arise. Therefore, caution should be exercised when interpreting and generalizing the results.

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