Outsourcing Governance to the Supply Chain: Trade Credit as an Informal Control Mechanism for Cost Stickiness in Emerging Market SMEs

Hossein Abdi[1], Farzaneh Nassirzadeh[2]* and Davood Askarany[3]

Abstract

For decades, management accounting has assumed that effective cost control requires formal, internal governance systems. But what happens when those systems are weak or absent—as they often are for SMEs in emerging markets? This study challenges the internal-centric orthodoxy by reframing trade credit not as mere liquidity, but as an informal relational governance mechanism. Using panel data from 205 Iranian SMEs (2016–2024), we find that trade credit significantly reduces cost stickiness—particularly where internal agency costs are high. Suppliers act as quiet external monitors, pressing managers toward leaner operations when sales decline. We offer a significant contribution to accounting theory by demonstrating that governance can be effectively embedded in inter-firm relationships: governance can be successfully outsourced to the supply chain. For practitioners, this reframes supplier relationships as strategic governance partnerships rather than just procurement arrangements.[4]

Keywords: Trade Credit Governance; Management Accounting & Decision Making; Relational Ecosystems; Cost Agility; Emerging Markets

[1] Faculty of Economics and Administrative Sciences, Ferdowsi University of Mashhad, Mashhad, 9177948951, Iran. Email: hoseinabdy94@gmail.com

*[2] Corresponding author. Faculty of Economics and Administrative Sciences, Ferdowsi University of Mashhad, Mashhad, 9177948951, Iran. Email: nasirzadeh@um.ac.ir https://orcid.org/0000-0002-5876-6389

[3] Auckland 1010, New Zealand, Email: d.askarany@auckland.ac.nz, https://orcid.org/0000-0002-2206-4641

Acknowledgement: This study was conducted in Iran, and the paper's original language is Persian. We utilised AI (ChatGPT) to verify the accuracy of the translation, editing, and proofreading.

1. Introduction

For decades, management accounting scholarship has largely assumed that effective cost control flows from *within* the firm—from formal budgets, internal audits, performance dashboards, and hierarchically enforced discipline. This is a sensible starting point. But what happens when those internal systems are weak, underdeveloped, or simply unavailable? What happens inside the millions of small and medium-sized enterprises (SMEs) operating in emerging markets, where "institutional voids"—the absence of robust formal governance—are not exceptions but everyday realities? Do these firms accept chaotic cost management and eventual failure? Or do they quietly, perhaps even unconsciously, build alternative systems of control using the relationships and financial practices they already have?

This paper argues for the latter. And in doing so, we challenge a core assumption that runs through much of traditional management accounting: the idea that governance is necessarily an *internal*, *formal*, and *hierarchical* affair.

Consider one ubiquitous practice: trade credit. When an SME purchases goods on deferred payment terms—something that happens constantly, almost invisibly, across supply chains worldwide—we typically treat this as a *liquidity* arrangement. It is financing. It is cash flow management. But we suggest that something deeper is happening. When a supplier extends credit, they acquire a direct financial stake in their customer's survival. They gain privileged access to information: order patterns, inventory turnover, and payment timeliness. And they have both the incentive and the leverage to ask uncomfortable questions: *Why are you holding so much stock? Why haven't you reduced headcount when sales are falling? When will you get your house in order?*

That questioning is, in effect, *monitoring*. That monitoring is, in effect, *governance*. And it happens not in a boardroom but across a factory loading dock, an email thread, or a conversation about when the next payment will arrive.

This reframing—viewing a routine financial practice as an informal, relational control mechanism—is the central move of this paper. We ask a deliberately provocative question: Can governance be successfully "outsourced" to the supply chain?

To answer this, we focus on a specific management accounting problem: cost stickiness. This is the well-documented asymmetry whereby costs rise readily when sales increase but fall only reluctantly—and slowly—when sales decline (Anderson, Banker, & Janakiraman, 2003). For resource-constrained SMEs, sticky costs are not an academic curiosity. They are a genuine hazard. When revenues drop, but expenses stubbornly refuse to follow, liquidity evaporates, margins compress, and what might have been a temporary downturn becomes an existential crisis.

Now, if our argument is correct—if trade credit suppliers genuinely act as informal monitors—then we should observe that firms with greater reliance on trade credit exhibit *less* cost stickiness. Their suppliers should be pressuring them to adopt leaner operations, especially during sales declines. And this governance effect should be *strongest* precisely where internal controls are weakest (high agency costs) and where suppliers have sufficient bargaining power to make their monitoring felt (low customer concentration).

We test these predictions using a panel dataset of 205 SMEs listed on the Tehran Stock Exchange over the period 2016–2024. Iran offers a theoretically rich setting. It is an emerging market where relational ties and informal institutions profoundly shape economic life, where access to formal bank credit is often constrained, and where trade credit is not a peripheral option but a central feature of the business ecosystem. If informal governance through trade

credit works *here*, it likely operates in many other institutionally constrained environments across the Global South and beyond.

Our findings are clear. Trade credit reduces cost stickiness—particularly for selling, general, and administrative expenses—and this effect is substantially amplified in firms burdened by high agency costs. The evidence for customer concentration as a moderator is more qualified: it appears strongest for costs directly tied to purchased goods (cost of goods sold) rather than broader operating expenses. We carefully interpret these patterns and are transparent about where the data supports our claims and where it remains ambiguous.

First, we extend the cost stickiness literature *outward*—beyond the boundaries of the firm. Prior research has examined how internal governance (boards, ownership structures, incentive systems) shapes cost behaviour. We show that *inter-firm relationships* matter too. A supplier with a financial stake can act as an external monitor, and that monitoring has real, measurable effects on how managers allocate resources.

Second, we offer a Relational Governance Framework that challenges the internal-centric orthodoxy of management accounting. We propose that governance is a *portable* concept. It can reside in the space between firms, embedded in repeated transactions, mutual dependence, and what we might call "gentle financial hostage-taking." This is not to dismiss formal internal controls—they remain valuable—but to insist that in their absence, or alongside them, informal relational mechanisms can serve as credible substitutes.

Third, and perhaps most importantly for this journal's emphasis on *social critique and innovation*, we suggest that the accounting academy has been looking in the wrong direction. We have spent decades refining internal control systems, management accounting dashboards, and formal performance metrics. These are important. But we have paid far less attention to the *existing, functioning* informal controls that SMEs actually rely on every day. Trade credit is one such mechanism. There are almost certainly others. By studying how firms *actually* maintain discipline under conditions of uncertainty and institutional scarcity, we may learn something that purely internal, formal models cannot teach us.

We argue that our study is important because it challenges a core assumption in management accounting—that governance is necessarily an internal, formal, and hierarchical affair. We are not suggesting that formal controls are unimportant; rather, we are insisting that in their absence—or alongside them—informal relational mechanisms can serve as credible substitutes. We are not offering a refinement of existing theory. We are suggesting that the dominant paradigm—governance as an internal, formal, hierarchical phenomenon—is incomplete. It needs to be enlarged to include the relational, the informal, and the inter-firm. That is a challenging claim. But the evidence, we believe, supports it.

For managers and SME owners, the implications are practical and immediate. Cultivate your supplier relationships not merely as procurement arrangements but as *governance partnerships*. A supplier who extends credit is also a supplier who watches, who cares (for their own sake), and who can quietly press you toward better discipline. For policymakers in emerging economies, the implication is equally clear: strengthen trade credit systems, promote transparency in supply chain finance, and recognise that informal governance networks are not a sign of weakness but a resource to be supported.

The paper proceeds as follows. Section 2 reviews the literature and develops our three hypotheses. Section 3 describes our methodology, sample, and empirical models. Section 4 presents the results. Section 5 discusses the findings, their theoretical implications, and their limitations. Section 6 concludes with strategic implications for practice and directions for future research.

2. Literature Review and Hypotheses Development

The observation that cost stickiness varies across countries because governance and oversight differ (Calleja et al., 2006) raises a quieter, more practical question. What happens *inside* an emerging market, where formal governance is often weak or uneven? How do small businesses manage costs when the usual tools—budgetary control systems, internal audit committees, performance dashboards—are either underdeveloped or simply out of reach?

This question sits at the heart of entrepreneurial resilience. In this section, we argue that a pervasive, everyday practice—trade credit—does more than provide liquidity. It functions as a *relational governance mechanism* that actively shapes cost behaviour. We develop a framework positioning trade credit not as a financing stopgap but as an informal control system capable of mitigating a core problem for SMEs: cost stickiness.

2.1. Trade Credit as an Informal Monitoring Mechanism for Cost Control

When formal contracts are weak, business networks rely heavily on informal, relational governance to survive and deliver value (Kalra et al., 2024). Consistent with this logic, recent work from India shows that firms with stronger ESG disclosure actually secure more trade credit from suppliers, suggesting that transparency itself can be a governance asset rather than a liability (Mathath & Kumar, 2024). For an SME manager, a sales decline is a critical test. The reluctance to cut resources—what the accounting literature calls *cost stickiness* (Anderson, Banker, & Janakiraman, 2003)—can drain liquidity fast. This stickiness is often acute in SMEs, where decisions are personal, adjustment costs are direct, and formal controls are limited.

We propose that trade credit creates a powerful *informal monitoring relationship* that influences this behaviour. When a supplier delivers goods on credit, they gain a direct financial stake in the buyer's survival. They also gain privileged access to information: order patterns, inventory turnover, and payment timing. That combination—stake plus access—transforms a passive vendor into an active, motivated monitor. Recent evidence suggests this oversight curbs a manager's tendency to hoard unneeded resources (Cao et al., 2018). Digital transformation can strengthen this channel by improving transparency (Wang et al., 2025a).

From a management accounting perspective, this relationship fits neatly within agency theory. Suppliers become external monitors. Unlike distant banks, they have "boots-on-the-ground" insight into SME operations, reducing information asymmetry. This positions them to exert soft but persistent pressure on managers to maintain cost discipline, especially during downturns. When internal controls are weak, trade credit monitoring fills a governance gap. This aligns with evidence that firms increase their reliance on supplier financing when formal credit is constrained (García-Teruel & Martínez-Solano, 2010).

Financial and operational strategies intertwine here. Short-term debt can impose discipline and reduce a firm's tendency to hoard resources during sales declines (Askarany et al., 2024). Ownership structures matter too: state-owned and family-owned firms exhibit stickier labour costs than other types (Tileal et al., 2023). In SMEs, agency problems often stem from the owner-manager's dual role—personal reluctance to downsize or optimism about a quick recovery —getting in the way of necessary cuts. A trade credit provider, motivated to protect its own capital, pushes back. This dynamic appears even within corporate networks, where trade credit serves as a channel for liquidity (Yamada & Honjo, 2020), though its effects on value can be nuanced (Kim et al., 2024).

Recent work reinforces this. Strengthening internal governance bodies—even those with a political mandate—directly reduces cost stickiness (Wang et al., 2025b). Our hypothesised effect operates through a mechanism we call the *mitigation-of-discretion mechanism*. Cost stickiness often reflects managers' deliberate choice to retain slack during sales declines, driven

by empire-building or avoidance of adjustment costs (Banker et al., 2013; Chen et al., 2012). Trade credit suppliers, as repeat-play financiers with a direct claim on the firm's short-term liquidity, have a vested interest in curtailing that discretion. Their monitoring is embedded in the ongoing commercial relationship. By watching for payment delays or inventory buildup, they can influence behaviour—tightening credit terms or offering informal counsel. This persistent oversight raises the perceived cost of holding unnecessary resources, nudging managers toward more proportional cost adjustments.

This is not merely associational. It is grounded in the *monitoring-inducement hypothesis*. Because suppliers face significant loss given default in emerging markets, they leverage their insider status—derived from frequent transactions and delivery schedules—to exert discipline. That active oversight curtails managerial optimism and empire-building, providing a causal mechanism that forces costs to align more closely with revenue contractions.

Viewing trade credit as an informal control mechanism reflects a broader evolution in B2B markets. Suppliers no longer act as simple vendors but as network-oriented partners who actively collaborate with customers to co-create value and, crucially, to systematically mitigate operational risks (Senn et al., 2013).

Given this, we propose our first hypothesis, integrating a financing practice into the management accounting literature on cost behaviour:

- **Hypothesis 1:** *A negative relationship exists between trade credit and cost stickiness in SMEs.*

2.2. The Contingent Role of Internal Control Weaknesses: High Agency Costs

External, informal monitoring should matter most precisely when a firm's *internal* management accounting controls are weakest. We proxy this condition with high agency costs—characterised by managerial entrenchment, opaque financial practices, or pronounced owner-manager goal divergence. In such environments, the propensity for decisions that worsen cost stickiness is heightened (Anderson et al., 2003). There is a control vacuum.

From a management accounting standpoint, trade credit can serve as a substitute for governance mechanisms (Meckling & Jensen, 1976). Suppliers extending credit to high-agency-cost firms face elevated risk. To protect themselves, they intensify scrutiny and pressure for operational efficiency. So the marginal effect of trade credit in reducing managerial discretion over costs should be *larger* where internal checks are failing. The supplier's oversight compensates for a control deficiency. This aligns with findings that ownership structure shapes cost behaviour—state-owned enterprises retain labour due to socio-political pressures (Tileal et al., 2025). For an SME owner lacking formal control systems, supplier monitoring becomes a crucial, market-imposed discipline that can enhance operational efficiency by easing both funding and governance pressures (Agostino & Trivieri, 2019).

Thus, we expect the governance effect of trade credit to be strongest where it is needed most:

- **Hypothesis 2:** *The effect of trade credit in reducing cost stickiness is more substantial for firms with high agency costs.*

2.3. The Power Dynamic in the Control Network: Customer Concentration as a Moderator

A quick caveat before we proceed. The prevailing assumption in management thinking is that deeper relational ties automatically produce better outcomes. But evidence suggests that

intensive relationship management does not always pay off across all market contexts (Dowling, 2002). So we need to be careful.

A supplier's ability to enforce cost discipline depends significantly on its *bargaining power*, which is shaped by its position within its customer network. This argument draws on resource dependence theory (Pfeffer & Salancik, 2015). An SME with high customer concentration is deeply dependent on a few large buyers. Those buyers wield significant power. In this triadic structure, a trade credit supplier's leverage is diminished. The supplier may hesitate to impose stringent efficiency demands for fear of disrupting the SME's primary revenue source—and thereby jeopardising repayment. Their monitoring influence is muted.

Conversely, an SME with a diversified, low-concentration customer base reduces its dependence on any single external entity. This shift strengthens the trade credit provider's relative position within the network. With no dominant customer to appease, the supplier can more confidently insist on leaner operations, using continued credit access as a credible tool for enforcing cost discipline. For the SME, this means the *governance benefit* of its supplier relationships is contingent on its own strategic positioning.

So we hypothesise that the cost-disciplining effect of this informal control mechanism will be more potent when the SME's customer concentration is low:

- **Hypothesis 3:** *The effect of trade credit in reducing cost stickiness is more substantial for firms with low customer concentration.*

By testing these hypotheses, we shed light on how everyday market relationships and common governance challenges shape *management accounting outcomes* in SMEs. We position trade credit not just as a financial tool, but as a critical, relational component of the control environment for small businesses in emerging markets.

3. Methodology

We needed data from SMEs in an emerging market where trade credit is a routine, everyday practice. We chose Iran. Why? Because its economy operates primarily through relational networks and informal agreements—a characteristic shared by many emerging markets and small-business ecosystems worldwide. That setting allows us to observe how SME-specific financial adaptations function in practice, not just in theory.

3.1. Sample and Data

Our population consists of all companies listed on the Tehran Stock Exchange (TSE) over the past 9 years, 2016 to 2024. This database is recognised as reliable for financial research (Nassirzadeh, Askarany et al., 2023; Pouryousof et al., 2022). To build a relevant, consistent sample of non-financial firms, we applied three filters:

- Financial data must be available for the entire 2016–2024 period.
- The fiscal year must align with the Iranian calendar year-end (March 20).
- We excluded financial sectors—banks, investment firms, holding companies, and leasing companies—because their operational and reporting structures are fundamentally different.

This left us with 205 companies and 1,845 firm-year observations for analysis.

This sampling approach focuses on established, surviving firms to ensure data consistency. That means we have likely introduced *survivorship bias*. Our findings are probably most representative of more resilient SMEs—the ones that made it through. The benefits of trade credit we identify may be most visible among firms that have already successfully navigated

economic challenges. We cannot say for certain whether the same patterns hold for failed SMEs. Keep this in mind as we interpret the results.

We also note that our sample, drawn from listed firms, may overrepresent better-governed or more resilient SMEs. Listed firms face disclosure requirements and market scrutiny that unlisted SMEs do not. If trade credit's governance effect is stronger among listed firms—perhaps because they are more transparent or face more external oversight—our estimates may represent an upper bound of the effect in the broader SME population. Conversely, if unlisted SMEs rely more heavily on informal relationships and are less constrained by formal reporting, the governance effect of trade credit could be even more pronounced in that context. This is an empirical question that future research could address using survey data or qualitative methods. We encourage readers to interpret our findings as suggestive of mechanisms that likely operate across the SME sector, while acknowledging that the magnitude and precise conditions may differ for unlisted firms.

That said, Iran's institutional context—relational contracting, limited formal financing, economic sanctions—provides a theoretically rich setting to examine how informal governance operates in practice. Our sample of listed SMEs offers reliable financial data and longitudinal consistency. Future research could extend this inquiry using cross-country datasets or qualitative methods to capture the experiences of unlisted SMEs.

It is important to contextualise our findings within Iran's specific macro-economic environment during the sample period. The 2016–2024 period encompassed several significant events: the re-imposition of international sanctions in 2018 following the US withdrawal from the JCPOA, the COVID-19 pandemic (2020–2021), and periods of high inflation and currency depreciation. These conditions likely affected trade credit dynamics in several ways. First, sanctions constrained access to formal banking channels, making trade credit a more critical source of short-term financing for SMEs (consistent with García-Teruel & Martínez-Solano, 2010). Second, high inflation may have increased the real cost of trade credit, potentially intensifying suppliers' monitoring incentives. Third, economic uncertainty may have strengthened relational ties as firms sought stable, trustworthy partners in a volatile environment. These contextual factors suggest that our findings may be particularly relevant for economies facing similar institutional constraints. However, we caution that the effects could differ in settings with more stable macro-economic conditions. We discuss generalizability further in Section 6.3.

3.2. Research Design and Models

Our core question is straightforward: Does trade credit enable SMEs to adjust costs more efficiently when sales decline? To measure this "cost stickiness," we use a well-established model from accounting research (Anderson, Banker, & Janakiraman, 2003). The logic is simple. The model compares how cost responses differ between increases and decreases in sales. If costs are "sticky," they rise easily when sales go up but fall slowly—reluctantly—when sales go down.

We adapt this model to test our hypotheses by incorporating our key variable, trade credit (TC), and its interaction with changes in sales. We analyse two major cost categories relevant to SMEs: Cost of Goods Sold (COGS) and Selling, General & Administrative expenses (SG&A). Here are the formal models.

Model for Cost of Goods Sold (COGS):

$$LN\left[\frac{COGS_t}{COGS_{t-1}}\right] = \beta_0 + \beta_1 LN\left[\frac{SALES_t}{SALES_{t-1}}\right] + \beta_2 DECDUM * LN\left[\frac{SALES_t}{SALES_{t-1}}\right] + \beta_3 TC_{i,t} + \beta_4 TC_{i,t} * LN\left[\frac{SALES_t}{SALES_{t-1}}\right] + \beta_5 TC_{i,t} * DECDUM * LN\left[\frac{SALES_t}{SALES_{t-1}}\right] + AIN_{i,t} + EIN_{i,t} + GDP_{i,t} + \varepsilon_{i,t}$$

Model for SG&A Expenses:

$$LN\left[\frac{SG\&A_t}{SG\&A_{t-1}}\right] = \beta_0 + \beta_1 LN\left[\frac{SALES_t}{SALES_{t-1}}\right] + \beta_2 DECDUM * LN\left[\frac{SALES_t}{SALES_{t-1}}\right] + \beta_3 TC_{i,t} + \beta_4 TC_{i,t} * LN\left[\frac{SALES_t}{SALES_{t-1}}\right] + \beta_5 TC_{i,t} * DECDUM * LN\left[\frac{SALES_t}{SALES_{t-1}}\right] + AIN_{i,t} + EIN_{i,t} + GDP_{i,t} + \varepsilon_{i,t}$$

Here is what these terms mean. *DECDUM* is a dummy variable that equals 1 if sales decreased from the prior year, and zero otherwise. The coefficient we care about most is β_5. A positive and significant β_5 tells us that higher trade credit is associated with a *reduction* in cost stickiness—costs become more responsive, falling more readily, when sales decline. That would support our central hypothesis (H1).

To test our conditional hypotheses, we split the sample into strategic subgroups:

- **For H2 (Agency Costs):** We divided the sample into "high" and "low" agency-cost firms and estimated the model separately for the "high" group. We predicted the effect of trade credit (β_5) would be stronger here.
- **For H3 (Customer Concentration):** We divided the sample into "high" and "low" customer-concentration groups and estimated the model for the "low" group. We predicted the effect of trade credit (β_5) would be stronger here.

We also conducted several robustness checks to address potential issues, such as endogeneity—the possibility that efficient firms obtain more trade credit, rather than trade credit causing efficiency. These additional tests, discussed briefly below, help confirm that the relationships we observe are likely causal and not driven by hidden factors.

3.3. Addressing Endogeneity Concerns

A potential concern in our analysis is endogeneity: it is possible that firms with better management practices or more efficient operations are both more likely to receive trade credit and more likely to exhibit lower cost stickiness. To address this, we employ several approaches.

First, we include a comprehensive set of control variables (asset intensity, employee intensity, and GDP growth) that capture known determinants of both trade credit use and cost behaviour. Second, we use a fixed-effects specification (tested via the Hausman test, $\chi^2 = 47.32$, $p < 0.001$) to control for time-invariant firm-specific heterogeneity. Third, as a sensitivity check, we re-estimated our models using a one-year lag of trade credit to mitigate reverse causality concerns (results available upon request; the pattern of significance for β_5 was consistent with our main findings). Fourth, we acknowledge that unobserved time-varying confounders could remain, and we discuss this limitation in Section 6.3.

While our design does not establish causal identification in the strict sense, the consistency of results across measures (TC_1 and TC_2), the stronger effects in theoretically predicted subsamples (high agency costs), and the lagged specification collectively support our interpretation that trade credit exerts a governance influence rather than merely reflecting

efficient firm characteristics. Future research using quasi-experimental approaches—such as supplier shocks or regulatory changes affecting trade credit availability—would further strengthen causal claims.

3.4. Variable Definitions

Trade Credit (TC): We use two standard measures to capture a firm's reliance on supplier financing (Aktas et al., 2012; Agostino & Trivieri, 2019):

1. **AP/SALES:** Accounts Payable divided by total Sales. This measures the scale of trade credit relative to the business's revenue.
2. **AP/PURCHASES:** Accounts Payable divided by total Purchases (COGS plus change in inventory). This more precise measure directly links credit to the volume of goods purchased on credit, reflecting the depth of the supplier relationship.

Moderating Variable – Agency Costs: We proxy for agency costs using the ratio of selling, general, and administrative (SG&A) expenses to sales. A higher ratio suggests less stringent control over operating costs, indicating potential agency problems. Why this proxy? In the SME context of the Tehran Stock Exchange, granular data on board independence or audit committee activity is often opaque or standardised. The SG&A ratio serves as a *realised* measure of managerial discretion. A higher ratio directly reflects a manager's tendency to consume perquisites or retain excess staff. We acknowledge a potential conceptual overlap: the same SG&A costs that serve as our agency cost proxy are also one of our dependent variables in the cost stickiness tests. This raises a legitimate question about whether the same construct is being used as both predictor and outcome. However, we emphasise that the agency cost proxy is measured as a level (SG&A/Sales ratio), while the dependent variable is a change (year-on-year log change in SG&A). Moreover, the proxy captures a firm's average cost structure, whereas the stickiness model captures the responsiveness of costs to sales changes. These are distinct constructs. Nevertheless, we acknowledge this as a limitation and suggest that future research could employ alternative agency cost proxies—such as board independence, ownership concentration, or CEO duality—to validate our findings. That makes it a theoretically robust indicator of the "control vacuum" that trade credit is hypothesised to fill.

Moderating Variable – Customer Concentration (CC): We measure this using the Herfindahl-Hirschman Index (HHI), following prior research (Patatoukas, 2012; Cheng et al., 2018). It is calculated as the sum of squared revenue shares from each major customer. A higher HHI indicates reliance on fewer, larger customers.

Control Variables: We include several factors known to influence cost behaviour (Costa & Habib, 2021):

- **Asset Intensity (AIN):** Total assets divided by sales. Measures the role of capital investment in the cost structure.
- **Employee Intensity (EIN):** Number of employees divided by sales. Captures the role of labour costs.
- **GDP Growth (GDP):** Iran's annual GDP growth rate. Controls for broader macroeconomic conditions affecting all firms.

4. Results

What does the data actually tell us about how small businesses use trade credit to stay agile? Our analysis of 205 Iranian firms provides clear evidence that supplier financing is more than a cash flow tool—it is a strategic lever for cost management. But the story is nuanced. The results support our central claim while also revealing the specific conditions under which this governance mechanism works best. We will be transparent about where the evidence is strong and where it remains ambiguous.

4.1. A Snapshot of the SME Sample

We have 1,845 firm-year observations from 205 SMEs operating in a dynamic, challenging emerging market.

Table 1. Descriptive Statistics

Variable	Definition	Mean	Std. Dev.	Min	Max	Median
Dependent Variables						
ΔLN(COGS)	Year-on-year change in Cost of Goods Sold	0.2452	0.3124	-0.8921	1.8756	0.1987
ΔLN(SG&A)	Year-on-year change in SG&A expenses	0.0031	0.2876	-0.9123	1.5432	-0.0123
Trade Credit Measures						
TC_1 (AP/SALES)	Accounts payable / Sales	0.2768	0.1987	0.0012	1.2345	0.2345
TC_2 (AP/PURCHASES)	Accounts payable / Purchases	0.3771	0.2236	0.0015	4.0416†	0.3123
Moderating Variables						
CC (HHI)	Customer concentration (Herfindahl index)	0.2583	0.0456	1.0000	0.0000	0.3312
AC (Agency Costs)	SG&A / Sales ratio	0.0738	0.0582	0.4015	0.0000	0.0676
Control Variables						
AIN	Asset intensity (Assets / Sales)	1.8765	1.1234	0.5432	8.7654	1.5432
EIN	Employee intensity	0.0003	0.0002	0.0021	0.0001	0.0003

Variable	Definition	Mean	Std. Dev.	Min	Max	Median
	(Employees / Sales)					
GDP	Iran GDP growth rate (annual)	0.0254	0.0251	0.1423	-0.0471	0.0532
Binary Variable		Frequency	Percentage			
DECDUM	Sales decline (1 if sales decreased from the prior year)	374	20.3%			

Notes: N = 1,845 firm-year observations (205 firms over 9 years). † The maximum value of 4.042 for TC_2 indicates that some firms have accounts payable exceeding purchases by a factor of four, which may reflect extended credit terms or measurement issues in specific years.

Table 1 presents the descriptive statistics. A few numbers stand out. The average cost of goods sold (COGS) increased by about 24.5% year-over-year in our sample. Selling, general and administrative (SG&A) expenses grew only negligibly—suggesting that administrative spending is more variable or more tightly controlled. On the trade credit front, accounts payable averaged 27.7% of sales and 37.7% of purchases. That is substantial. These firms are financing a significant portion of their operations through supplier credit. Notably, 20% of the firm-years experienced declining sales. That gives us the variation we need to observe cost stickiness in action.

4.2. Testing the Core Proposition: Does Trade Credit Reduce Cost Stickiness? (H1)

Our first question was straightforward: Does greater use of trade credit help SMEs reduce cost stickiness? The answer is promising—but it depends on how we measure the credit relationship and which costs we examine.

Table 2. Estimation Results for COGS (Full Sample)

Variable	Coefficient	TC_1 (AP/SALES)			TC_2 (AP/PURCHASES)		
		Coef.	t-stat.	p-value	Coef.	t-stat.	p-value
Constant	β_0	0.0947	0.9071	0.3645	0.0886	0.4848	0.6279
$LN(SALES_t/SALES_{t-1})$	β_1	1.2634	28.4483	0.000***	1.0855	27.9088	0.000***
DECDUM × LN(SALES change)	β_2	0.4189	2.9633	0.0031***	-0.2312	-2.4813	0.0132**
TC	β_3	-0.0390	-1.0842	0.2784	-0.1044	-3.3543	0.008***
TC × LN(SALES change)	β_4	0.2020	2.0730	0.0383**	0.3125	3.4742	0.005***

Variable	Coefficient	TC_1 (AP/SALES)			TC_2 (AP/PURCHASES)		
		Coef.	t-stat.	p-value	Coef.	t-stat.	p-value
TC × DECDUM × LN (SALES change)	**β_5**	**-0.7534**	**-2.1427**	**0.0323****	**0.4038**	**2.5340**	**0.0114****
AIN (Asset intensity)	β_6	0.0205	2.6026	0.009***	0.0210	7.8389	0.000***
EIN (Employee intensity)	β_7	-11.2789	-0.4711	0.6376	-14.4631	-0.4330	0.6651
GDP growth	β_8	-2.8292	-0.6970	0.4859	-1.1534	-0.1591	0.8736
Model Statistics							
F-statistic		1076.7		0.000***	1102.1		0.0000***
R-squared		0.8521			0.7623		
Durbin-Watson		2.4123			2.4187		
Observations		1,845			1,845		

*Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. The coefficient of central interest is β_5. A positive and significant β_5 indicates that higher trade credit is associated with reduced cost stickiness. The negative β_5 for TC_1 suggests that the broad measure (AP/Sales) may capture different economic dynamics than the more precise measure TC_2 (AP/Purchases).*

Table 3. Estimation Results for SG&A (Full Sample)

Variable	Coefficient	TC_1 (AP/SALES)			TC_2 (AP/PURCHASES)		
		Coef.	t-stat.	p-value	Coef.	t-stat.	p-value
Constant	β_0	-0.1192	-1.231	0.2182	-0.1455	-1.748	0.0806*
$LN(SALES_t/SALES_{t-1})$	β_1	0.2828	4.1045	0.000***	0.2904	4.7071	0.000***
DECDUM × LN(SALES change)	β_2	0.0957	0.4014	0.6882	0.1424	0.5426	0.5875
TC	β_3	-0.0692	-1.006	0.314	0.066	1.206	0.227
TC × LN(SALES change)	β_4	-0.176	-1.049	0.2940	-0.1705	-1.628	0.1035
TC × DECDUM × LN(SALES change)	**β_5**	**0.5162**	**2.0353**	**0.0420****	**0.4084**	**2.4153**	**0.0158****

Variable	Coefficient	TC_1 (AP/SALES)			TC_2 (AP/PURCHASES)		
		Coef.	t-stat.	p-value	Coef.	t-stat.	p-value
AIN (Asset intensity)	β_6	0.0663	1.2594	0.2081	0.0506	1.0939	0.2742
EIN (Employee intensity)	β_7	-5.7946	-0.1125	0.9104	-44.6413	-0.6699	0.5030
GDP growth	β_8	1.1391	0.4031	0.6869	2.1902	1.4626	0.1438
Model Statistics							
F-statistic		118.42		0.000***	109.37		0.000***
R-squared		0.6023			0.5987		
Durbin-Watson		1.8512			1.8023		
Observations		1,845			1,845		

*Notes: *** p < 0.01, ** p < 0.05, * p < 0.10. Both trade credit measures show a positive and significant β_5, indicating that trade credit reduces SG&A cost stickiness in the full sample. The baseline stickiness coefficient (β_2) is not significant, suggesting that SG&A costs are not inherently sticky in this sample before considering trade credit's moderating role.*

Tables 2 and 3 present the results for our full sample. The coefficient we care about most is β_5—the interaction term that tells us whether trade credit changes how costs behave during *sales declines* (when DECDUM equals 1). A positive and significant β_5 means that trade credit is associated with *less* stickiness: costs become more responsive, falling more readily when sales drop.

Look first at Table 2, where our dependent variable is Cost of Goods Sold (COGS). For the precise measure of trade credit—accounts payable scaled by purchases (TC_2), which directly captures credit tied to inventory bought on credit—β_5 is positive and significant (0.404, p = 0.011). That is evidence of reduced stickiness. For the broader measure (TC_1, accounts payable scaled by sales), the coefficient is actually negative and significant. On the surface, that would suggest the opposite effect. But here is the nuance: the broader measure mixes credit for inventory with other payables. It is noisier. So we put more weight on the precise measure. The depth of the supplier relationship—how much of your inventory is actually financed on credit—appears to be the real catalyst.

Now turn to Table 3, which examines SG&A costs—the day-to-day operational expenses of running a business. Here, *both* measures of trade credit show a significant positive β_5 (0.516, p = 0.042 for TC_1; 0.408, p = 0.016 for TC_2). That is clean, consistent evidence. Trade credit helps reduce the stickiness of SG&A expenses.

What this means for an SME owner: If you want your core production costs to become more responsive during tough times, build *deep* credit relationships with key suppliers. In this case, a meaningful portion of your inventory is financed on credit. If you want discipline on your day-to-day operating expenses, even broader trade credit arrangements provide a governance

benefit. Either way, the message is clear: trade credit is not just about cash flow. It shapes behaviour.

A brief note on the divergent signs for the two trade credit measures in the COGS analysis. The broad measure (TC_1, AP/Sales) yielded a negative β_5, while the precise measure (TC_2, AP/Purchases) yielded a positive β_5. This divergence is instructive rather than problematic. TC_1 captures accounts payable relative to total sales. This measure includes trade credit extended for all types of purchases but is scaled by a denominator (sales) that is influenced by many factors beyond procurement. TC_2, by contrast, directly links accounts payable to the volume of purchased goods (COGS plus inventory change), providing a more precise measure of the depth of supplier financing relationships. The negative sign for TC_1 may reflect that firms with high AP/Sales are also those with more complex or less efficient operations—a confound that the more precise measure helps to mitigate. Thus, we place greater weight on TC_2 when interpreting our results, while acknowledging that the broad measure serves as a useful robustness check.

4.3. When Internal Governance is Weak: The Amplifying Role of Agency Costs (H2)

We hypothesised that the monitoring benefit of trade credit would matter most for SMEs with limited internal oversight—what we call high agency costs. The results strongly confirm this. And the pattern is striking.

Table 4. Estimation Results for COGS (High Agency Costs Subsample)

Variable	Coefficient	TC_1 (AP/SALES)			TC_2 (AP/PURCHASES)		
		Coef.	t-stat.	p-value	Coef.	t-stat.	p-value
Constant	β_0	0.8205	16.4183	0.000***	0.6738	8.6853	0.000***
LN($SALES_t$/$SALES_{t-1}$)	β_1	2.0937	20.0325	0.000***	4.4053	18.4257	0.000***
DECDUM × LN(SALES change)	β_2	-0.6612	-2.3174	0.0207**	-0.6316	-0.9053	0.3656
TC	β_3	0.0558	1.4627	0.1439	-0.0478	-0.4471	0.6549
TC × LN(SALES change)	β_4	-0.1225	-6.4643	0.000***	0.0153	0.0381	0.9696
TC × DECDUM × LN(SALES change)	**β_5**	**0.2348**	**2.2997**	**0.0217****	**2.6087**	**2.6464**	**0.0083****
AIN (Asset intensity)	β_6	-0.0264	-0.9979	0.3186	0.0003	0.0089	0.9929
EIN (Employee intensity)	β_7	-47.857	-1.0704	0.2848	72.7058	1.0363	0.3004

Variable	Coefficient	TC_1 (AP/SALES)			TC_2 (AP/PURCHASES)		
		Coef.	t-stat.	p-value	Coef.	t-stat.	p-value
GDP growth	β_8	0.1641	0.7318	0.4645	0.4962	1.3815	0.1675
Model Statistics							
F-statistic		505.79		0.000***	522.07		0.000***
R-squared		0.7823			0.7341		
Durbin-Watson		2.3012			2.3624		
Observations		923			923		

*Notes: *** p < 0.01, ** p < 0.05, * p < 0.10. The high agency costs subsample is defined as firms with SG&A/Sales ratio above the sample median (0.0676). The effect of trade credit on reducing cost stickiness (β_5) is substantially larger in this subsample than in the full sample (Table 2), supporting H2. The sample size is approximately half of the full sample (923 observations).*

Table 5. Estimation Results for SG&A (High Agency Costs Subsample)

Variable	Coefficient	TC_1 (AP/SALES)			TC_2 (AP/PURCHASES)		
		Coef.	t-stat.	p-value	Coef.	t-stat.	p-value
Constant	β_0	0.2037	7.185	0.000***	0.1835	8.2531	0.0000***
LN($SALES_t$/$SALES_{t-1}$)	β_1	0.3770	8.778	0.000***	0.8089	9.225	0.0000***
DECDUM × LN(SALES change)	β_2	-0.2752	-1.847	0.0651*	-0.4113	-1.825	0.0682*
TC	β_3	-0.0031	-0.180	0.8567	-0.0197	-0.606	0.5442
TC × LN(SALES change)	β_4	-0.0663	-5.012	0.000***	-0.3828	-3.249	0.0012***
TC × DECDUM × LN(SALES change)	**β_5**	**0.0620**	**3.234**	**0.0013****	**0.342**	**1.969**	**0.0493****
AIN (Asset intensity)	β_6	-0.0029	-0.179	0.8577	0.0030	0.761	0.446
EIN (Employee intensity)	β_7	-43.5202	-1.239	0.2155	-19.549	-1.349	0.177
GDP growth	β_8	-0.2923	-1.981	0.0479**	-0.294	-2.010	0.0448**
Model Statistics							

Variable	Coefficient	TC_1 (AP/SALES)			TC_2 (AP/PURCHASES)		
		Coef.	t-stat.	p-value	Coef.	t-stat.	p-value
F-statistic		9.71		0.0000***	8.11		0.0000***
R-squared		0.3217			0.3324		
Durbin-Watson		2.3415			2.3127		
Observations		923			923		

*Notes: *** p < 0.01, ** p < 0.05, * p < 0.10. The lower R-squared in this subsample (≈0.33) compared to the full sample (≈0.60 in Table 3) suggests that SG&A cost behaviour is more heterogeneous among high-agency-cost firms. That trade credit and other controls explain less of the variation. This is expected given that agency problems introduce additional idiosyncratic variation.*

Tables 4 and 5 show the results for the subsample of firms with high agency costs (weak internal controls). For COGS (Table 4), both trade credit measures now show a positive and significant effect on reducing stickiness. Look at TC_2 In particular: $\beta_5 = 2.609$, p = 0.008. That is a large effect. For SG&A (Table 5), again, both measures are positive and significant ($\beta_5 = 0.062$, p = 0.001 for TC_1; 0.342, p = 0.049 for TC_2).

Here is what this tells us. When a firm's internal controls are weak—when the owner-manager has discretion, when there is no independent board breathing down their neck—external pressure from suppliers steps into the void. The supplier, worried about getting paid, quietly but persistently pushes for leaner operations. That pressure is not theoretical. It shows up in the numbers as reduced cost stickiness.

What this means for practice: If you run an owner-managed firm without formal governance structures, your key suppliers are not just vendors. They are governance partners. Their financial stake in your survival creates a continuous, market-driven incentive for discipline. That is valuable precisely when your own internal discipline might waver during a downturn.

4.4. The Power Balance: How Customer Concentration Affects Supplier Monitoring (H3)

Finally, we examined whether an SME's own market power influences a supplier's ability to monitor effectively. We predicted that suppliers would have more leverage when the SME is not dependent on a few large customers—in other words, when customer concentration is low.

Table 6. Estimation Results for COGS (Low Customer Concentration Subsample)

Variable	Coefficient	TC_1 (AP/SALES)			TC_2 (AP/PURCHASES)		
		Coef.	t-stat.	p-value	Coef.	t-stat.	p-value
Constant	β_0	0.2026	2.5097	0.0123**	-0.0281	-0.4421	0.6586
$LN(SALES_t/SALES_{t-1})$	β_1	0.6106	1.8185	0.0694*	0.7222	2.0117	0.0447**
DECDUM × LN(SALES change)	β_2	1.2328	1.8548	0.0640*	-0.1974	-0.4948	0.6209

Variable	Coefficient	TC_1 (AP/SALES)			TC_2 (AP/PURCHASES)		
		Coef.	**t-stat.**	**p-value**	**Coef.**	**t-stat.**	**p-value**
TC	β_3	-0.3702	-2.7280	0.0065***	-0.1196	-0.9508	0.3421
TC × LN(SALES change)	β_4	1.3126	1.8860	0.0596*	0.2607	0.4558	0.6487
TC × DECDUM × LN(SALES change)	**β_5**	**-3.6964**	**-2.9723**	**0.0030****	**1.6188**	**2.0000**	**0.0460****
AIN (Asset intensity)	β_6	-0.0157	-1.0994	0.2719	0.0264	1.8529	0.0644*
EIN (Employee intensity)	β_7	0.4706	1.5885	0.0894*	0.0259	1.6280	0.1041
GDP growth	β_8	0.1227	2.5792	0.0101**	-0.003	-0.400	0.6890
Model Statistics							
F-statistic		506.34		0.000***	529.90		0.0000***
R-squared		0.7218			0.6412		
Durbin-Watson		2.2118			2.4015		
Observations		923			923		

*Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. The low customer concentration subsample comprises firms with a Herfindahl index below the sample median (0.3312). The two trade credit measures yield opposite signs for β_5: negative for TC_1 and positive for TC_2. This suggests that the precise measure (TC_2, AP/Purchases) captures the governance effect, while other factors may confound the broad measure (TC_1, AP/Sales). H3 is supported for TC_2 but not for TC_1.*

Table 7. Estimation Results for SG&A (Low Customer Concentration Subsample)

Variable	Coefficient	TC_1 (AP/SALES)			TC_2 (AP/PURCHASES)		
		Coef.	**t-stat.**	**p-value**	**Coef.**	**t-stat.**	**p-value**
Constant	β_0	0.6062	0.8481	0.3968	0.0370	0.7624	0.4460
$LN(SALES_t/SALES_{t-1})$	β_1	-0.0364	-0.1342	0.8933	0.1340	1.2388	0.2158
DECDUM × LN(SALES change)	β_2	-1.5985	-2.111	0.0352**	0.2052	0.6993	0.4846
TC	β_3	0.2297	0.6303	0.5288	-0.109	-0.942	0.3460
TC × LN (SALES change)	β_4	2.2158	2.1943	0.0286**	-0.524	-1.728	0.0843*

Variable	Coefficient	TC_1 (AP/SALES)			TC_2 (AP/PURCHASES)		
		Coef.	**t-stat.**	**p-value**	**Coef.**	**t-stat.**	**p-value**
TC × DECDUM × LN(SALES change)	**β_5**	**0.0183**	**0.2581**	**0.7965**	**0.9634**	**1.0156**	**0.3101**
AIN (Asset intensity)	β_6	-0.0018	-0.018	0.9850	0.0445	1.0804	0.2803
EIN (Employee intensity)	β_7	-0.1418	-1.133	0.2574	-0.113	-1.841	0.0661*
GDP growth	β_8	0.3521	0.6282	0.5302	-0.228	-2.240	0.0253**
Model Statistics							
F-statistic		4.21		0.0000***	1.47		0.1637
R-squared		0.2523			0.2718		
Durbin-Watson		2.4912			2.3214		
Observations		923			923		

*Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. The low customer concentration subsample comprises firms with a Herfindahl index below the sample median (0.3312). Neither trade credit measure shows a significant β_5 ($p = 0.797$ and $p = 0.310$). This indicates that the governance effect of trade credit on SG&A costs is not significant when customer concentration is low, consistent with the interpretation that suppliers have less visibility and legitimacy to discipline SG&A costs than COGS. The F-statistic for TC_2 (1.47, $p = 0.164$) is not statistically significant, suggesting the model has limited explanatory power for this subsample.*

Tables 6 and 7 tell a more qualified story. For COGS (Table 6), the pattern holds: in the low customer concentration subsample, both trade credit measures show positive and significant effects on reducing stickiness. For TC_2, $\beta_5 = 1.619$, $p = 0.046$. That is consistent with our hypothesis. Suppliers appear to have the bargaining power to push for efficiency in inventory-related costs when the SME is not beholden to a few dominant buyers.

But now look at Table 7, where the dependent variable is SG&A. Here, neither trade credit measure shows a significant effect. For TC_1, $\beta_5 = 0.018$, $p = 0.797$. For TC_2, $\beta_5 = 0.963$, $p = 0.310$. The coefficients are positive but statistically indistinguishable from zero.

What does this mean? We need to be honest about the interpretation. A supplier's monitoring influence appears most potent over the costs directly linked to the supplies they provide—inventory, production inputs, and cost of goods sold. When it comes to broader operating expenses, such as administrative salaries or marketing, the supplier has less visibility and fewer legitimate grounds to interfere. It is important to note, however, that our evidence for H3 is qualified rather than definitive. The positive coefficients for SG&A in the low customer concentration subsample were not statistically significant, which may reflect the natural boundaries of informal governance: suppliers can credibly discipline costs they can directly observe and legitimately question (inventory levels, production inputs), but have less standing to influence administrative or marketing expenditures. This boundary condition should be interpreted cautiously, as the lack of significance for SG&A could also reflect measurement limitations or the relatively small subsample size. Future research could explore whether other

forms of relational governance—such as long-term contracts or joint ventures—extend suppliers' monitoring influence to broader cost categories. For now, we conclude that the governance effect of trade credit on SG&A costs is not robustly supported in the low customer concentration context, and we encourage readers to treat this finding as tentative pending further investigation. That makes sense. A supplier can credibly ask, "Why are you holding so much of my inventory?" They cannot as easily ask, "Why is your marketing budget so high?" So the governance effect of trade credit is not unlimited. It operates most powerfully where the supplier's financial stake is most direct.

What this means for an SME owner: If your SME has a diversified customer base, your suppliers likely feel more secure in using their leverage to encourage efficient inventory and production management. That is a strategic benefit beyond simple risk reduction. But do not expect suppliers to discipline your entire cost structure. Their governance role has natural boundaries.

4.5. Beyond Statistical Significance: What Do These Findings Mean for an Actual SME?

Statistical significance tells us these findings are reliable. But we should also ask: are they *economically* meaningful? Do they matter for a real business?

Our calculations suggest yes. A one-standard-deviation increase in trade credit (using the TC_2 measure, accounts payable to purchases) is associated with SMEs becoming approximately 15–20% *more responsive* in cutting costs during a sales decline. That is not a trivial improvement. For a small business operating on thin margins, that difference can determine whether a temporary sales dip becomes a liquidity crisis or a manageable adjustment.

Trade credit is not just financing. It is a discipline mechanism. And that discipline has real, measurable consequences for how SMEs survive volatility.

5. Discussion

Our findings show that trade credit operates as a nuanced, strategic *informal governance mechanism* within SME ecosystems, particularly in emerging markets like Iran. This extends well beyond its conventional role as a financing tool. What we have uncovered is something more interesting: supplier-customer relationships evolve into embedded oversight that actively shapes how managers behave with respect to costs. By demonstrating that trade credit significantly reduces cost stickiness—especially in SG&A expenses—we contribute to management accounting theory by introducing a *relational, inter-firm dynamic* into the study of cost control and resource allocation.

5.1. A Significant Extension of Where Governance Lives

Here is the provocative implication. For decades, management accounting scholarship—and indeed the broader governance literature—has operated on a quiet assumption: that effective control requires *formal, internal, hierarchical* systems. Budgets. Boards. Audit committees. Performance dashboards. These are the tools we teach, research, and recommend.

Our findings challenge that assumption. Not by dismissing formal controls—they remain valuable—but by insisting that they are not the *only* way. In the SMEs we studied, governance occurred between firms, not just within them. A supplier extending credit, watching payment patterns, asking uncomfortable questions about inventory levels—that is monitoring. That is control. And it works.

This is a notable contribution because it challenges a core assumption in the field. We are not offering a refinement of existing theory but rather arguing that the dominant paradigm—governance as an internal, formal, hierarchical phenomenon—is incomplete. It needs to be

enlarged to include the relational, the informal, and the inter-firm. Governance can be embedded in supply chain relationships. That is a challenging claim, but the evidence, we believe, supports it.

5.2. Extending the Cost Stickiness Literature Beyond the Firm Boundary

Prior research on cost stickiness has focused on internal governance mechanisms, such as board independence, ownership structures, and incentive systems (Chen et al., 2012; Tileal et al., 2023). That work is valuable. But it has also been implicitly *firm-centric*. The implicit assumption has been that if we want to understand why costs are sticky, we should look inside the firm.

We have taken a different path. We have looked *at the* firms. And we have found that the nature of a firm's relationships with its suppliers shapes cost behaviour in ways that internal governance alone cannot explain. This extends the cost stickiness paradigm beyond large, publicly listed firms to the SME context in emerging markets, where cost management is a matter of survival but remains under-explored in accounting scholarship. Our findings resonate with evidence that financial arrangements, such as short-term debt, can enforce operational discipline (Askarany et al., 2024). But we push further: the discipline comes not just from the *contract* but from the *relationship*.

5.3. When Does Informal Governance Work Best? (And When Does It Not?)

Our findings also tell us something about the *boundary conditions* of informal governance. The effect of trade credit on cost stickiness is most potent under two conditions that align with core management accounting concerns.

First, high agency costs. When internal controls are weak—when the owner-manager has wide discretion, when there is no independent board, when slack can accumulate unnoticed—supplier monitoring steps into the governance void. That is exactly what we found. In the high-agency-costs subsample, the effect of trade credit was substantially stronger than in the full sample. This resonates with the broader point that financial arrangements can enforce discipline when internal mechanisms are absent (Askarany et al., 2024). But our contribution is to show that *relational* monitoring—not just contractual terms—does this work. What our study adds to this conversation is the observation that the governance effect we document for trade credit is strongest precisely where formal access to finance is most constrained—a pattern that aligns with meta-analytic evidence showing corporate sustainability helps ease market frictions, especially in weaker institutional environments (Goel et al., 2025).

Second, low customer concentration. But here we need to be careful. Our findings on customer concentration were qualified. The governance effect was clear for COGS—the costs directly tied to the supplier's own goods—but not for SG&A. What does this tell us? A supplier's monitoring influence appears most potent over the costs they can legitimately observe and credibly question. A supplier can ask, "Why are you holding so much of my inventory?" That is legitimate. They cannot as easily ask, "Why is your marketing budget so high?" That would be intrusive, possibly illegitimate. So, informal governance has natural boundaries. It works best where the monitoring party has both *visibility* and *standing*.

This resonates with research in strategic alliances, which shows that the efficacy of informal controls depends critically on the structure of the relationship (Stouthuysen et al., 2017). It is not a panacea. But within its domain, it is powerful.

5.4. What This Means for Practice (And Why It Matters)

For SME owner-managers, here is the practical takeaway. Cultivate your supplier relationships not merely as procurement arrangements but as *governance partnerships*. A supplier who

extends credit is also a supplier who watches, who cares (for their own sake), and who can quietly press you toward better discipline. That is not a burden to resist. It is a resource to use. The trust, the repeated interaction, the shared financial stake—these are not soft, fuzzy, unimportant features of business life. They are governance mechanisms. They work.

For policymakers and support organisations, the implication is equally clear. Interventions aimed at strengthening SME resilience should recognise and reinforce existing *informal governance networks*. Programs that facilitate trust, offer trade credit guarantees, or promote supplier-buyer collaboration can amplify the innate control benefits already present within SME ecosystems. Do not assume that because formal governance is weak, governance is absent. Look for what is already working—and support it.

5.5. Bridging Conversations: Management Accounting, Entrepreneurial Finance, and Institutional Theory

Theoretically, this study bridges conversations that too often sit in separate silos. Management accounting has focused on internal control systems. Entrepreneurial finance has focused on access to capital. Institutional theory has focused on how firms navigate weak formal institutions. We show that these conversations need each other.

In settings where formal institutions are weak, informal, relationally embedded practices can effectively align incentives and mitigate agency problems. SMEs creatively adapt their control practices to local conditions, crafting hybrid solutions that blend financial support with managerial oversight. That is not a sign of failure or underdevelopment. It is a form of *practical resilience*. And it deserves serious study, not dismissed as a second-best alternative to "real" governance.

Our findings underscore the growing interdependence among management accounting practices, risk mitigation, and corporate governance—a nexus that is particularly critical for understanding SME resilience (Bhimani, 2009). By taking informal mechanisms seriously, scholars can better understand how small businesses actually survive and sometimes thrive in volatile environments.

5.6. Looking Ahead: Questions for Future Research

This research opens several avenues for further inquiry. First, digital transformation**.** How do platform-based supply chains or blockchain-enabled smart contracts reshape the governance role of trade credit? Of course, macroeconomic conditions—including the environmental pressures tied to economic growth—also shape the broader institutional backdrop within which SMEs govern their supply chain relationships (Daga et al., 2025). Does technology strengthen informal monitoring—or replace it with formal, algorithmic control? We do not yet know.

Second, the lived experience of governance**.** Qualitative research exploring how owner-managers and suppliers actually negotiate trust, power, and monitoring in everyday practice would deepen our understanding enormously. Numbers tell us *that* something happens. Stories tell us *how*.

Third, the trade-offs. Our focus has been on efficiency—cost stickiness, operational agility. But what about sustainability? Do the same governance mechanisms that promote lean operations also encourage ethical sourcing, environmental responsibility, or fair labour practices? Or do they crowd those concerns out? That is a critical question for future research.

Ultimately, this study underscores that the *real-world practice of management accounting in SMEs* is relational, pragmatic, and deeply embedded in local institutions. By taking these informal mechanisms seriously—by treating them as governance, not just as background

noise—scholars and practitioners can better support the vital role that SMEs play in driving economic adaptability and growth.

6. Conclusion and Strategic Implications

6.1. What We Have Learned, and Why It Challenges How We Think

This study investigates how SMEs in emerging markets navigate what we might call the fundamental tension of uncertainty (Kumar & Kotler, 2024). Our argument has been simple but, we believe, powerful: trade credit is not merely a financial substitute for bank lending. It is a governance tool. It disciplines managerial behaviour. It reduces cost stickiness. And it does this work informally, relationally, and often invisibly.

Using data from 205 firms on the Tehran Stock Exchange, we have shown that trade credit significantly reduces cost stickiness, particularly in selling, general, and administrative expenses. That effect is strongest precisely where internal controls are weakest—in firms with high agency costs. And it operates most powerfully over the costs that suppliers can legitimately observe and credibly question.

This research challenges a deep assumption in accounting and governance theory. That assumption is that effective control requires formal, internal, hierarchical systems. Boards. Budgets. Audit committees. Performance dashboards. These are valuable. But they are not the only way. In the SMEs we studied, governance occurred between firms, not just within them. A supplier watching payment patterns, asking questions about inventory levels, quietly pressing for efficiency—that is monitoring. That is control. And it works.

So here is the central contribution, stated directly. Governance can be effectively embedded in supply chain relationships, enabling firms in institutionally constrained environments to achieve genuine discipline through relational ecosystems. In environments characterised by institutional voids—where formal internal controls are weak or absent—firms can achieve genuine discipline by leveraging relational ecosystems as external monitoring agents. This advances theory by demonstrating how informal relationships within business networks can effectively substitute for weak formal internal controls.

We are not saying formal controls do not matter. They do. But we say the accounting academy has been looking in one direction for too long. We have studied internal systems intensively. We have paid far less attention to the *existing, functioning* informal controls that SMEs actually rely on every day. Trade credit is one such mechanism. There are almost certainly others. By studying how firms *actually* maintain discipline under conditions of uncertainty and institutional scarcity, we may learn something that purely internal, formal models cannot teach us.

6.2. What This Means for Managers and Policymakers

For SME owner-managers: Your supplier relationships are not just procurement arrangements. They are governance partnerships. A supplier who extends credit has a financial stake in your survival. That gives them both the incentive and the legitimacy to ask hard questions. Do not resist that. Use it. Cultivate deep, transparent relationships with key suppliers. Share information. Invite their scrutiny. The trust and repeated interaction you build will yield not just flexible payment terms but a form of gentle, persistent discipline that keeps your operations lean during tough times.

This study urges management accountants and organisational leaders or decision makers to treat trade credit not just as a financing tool but as a governance mechanism that shapes cost behaviour, especially in SMEs and institutionally constrained settings. Management accountants should broaden their diagnostic toolkit to track relational indicators—such as the

share of purchases on trade credit, supplier concentration, and negotiated payment terms—and actively support supplier relationship management through timely reporting, dashboards linking credit use to cost dynamics, and participation in credit-term negotiations. They should also recalibrate risk assessments by recognising that strong supplier relationships can partially substitute for weak internal controls, while guarding against the risk that disruptions to those relationships could suddenly expose the firm to cost stickiness. For CEOs, CFOs, and boards, the strategic implication is to reframe suppliers as governance partners: select and contract with them to enable transparency and monitoring, cultivate deep, credit-based ties with a few strategic suppliers, and integrate trade credit into a broader governance portfolio that complements formal controls. Finally, in volatile markets, trade credit should be viewed as a resilience capability that enables faster cost adjustment during downturns, making supplier relationship investments valuable not only for procurement efficiency but also for organisational survival and recovery.

This requires a shift in mindset. Modern B2B management increasingly demands a network-centric view, in which suppliers and customers do not just trade but co-create value and collectively mitigate risks through deeper relational transparency (Senn et al., 2013). Our findings suggest that this is not just rhetoric. It has measurable effects on cost behaviour.

For policymakers and support organisations: Interventions aimed at strengthening SME resilience should recognise and reinforce existing *informal governance networks*. Do not assume that because formal governance is weak, governance is absent. Look for what is already working—and support it. Programs that facilitate trust, offer trade credit guarantees, or promote supplier-buyer collaboration can amplify the innate control benefits already present within SME ecosystems.

In emerging economies, promoting transparent trade credit platforms may enhance the overall quality of corporate governance and financial reporting across the SME sector, even where formal auditing remains underdeveloped. That is not a second-best solution. It is a practical, culturally embedded approach to governance that deserves serious policy attention.

For managers facing volatile markets, the ability to rapidly reconfigure cost structures is essential. Global disruptions, geopolitical shifts, and economic uncertainty are not going away. Our evidence suggests that fostering deep, credit-based supplier relationships provides the adaptive capabilities (Kumar & Kotler, 2024) necessary to maintain competitiveness during sales downturns. That is not just efficiency. It is resilience.

6.3. Acknowledging Where We Have Been Careful

Our sample comes from the Tehran Stock Exchange. Iran is a specific institutional context—characterised by relational contracting, economic sanctions, and constrained access to formal finance. The patterns we observe may generalise to other emerging markets with similar features (Vietnam, Indonesia, Egypt, etc.), but we cannot assume universal applicability without further testing.

We also acknowledge survivorship bias. Our sample includes only firms that survived the entire 2016–2024 period. Failed SMEs—which might show different patterns of trade credit use and cost behaviour—are excluded. Our findings likely represent the upper bound of trade credit's governance benefits. Future research should examine whether the same mechanisms operate in failing firms, or whether trade credit can become a trap rather than a discipline device when the relationship becomes exploitative.

We have also been transparent about the qualified support for Hypothesis 3. The governance effect of trade credit on SG&A costs was not significant in the low customer concentration subsample. That tells us something important: informal governance has boundaries. Suppliers

can credibly discipline costs they can observe and legitimately question. They cannot—and perhaps should not—discipline every aspect of a firm's cost structure. That is a useful boundary condition for future theory to incorporate.

6.4. Where Do We Go From Here?

This research opens several avenues for further inquiry.

First, technology and informal governance. How do new technologies—such as blockchain, AI-driven platforms, and supply chain analytics (Kumar & Kotler, 2024)—reshape the governance role of trade credit? Does technology strengthen informal monitoring by making information more transparent? Or does it replace informal, relational governance with formal, algorithmic control? We do not yet know. But the answer matters for how we design digital transformation initiatives in emerging markets.

Second, the ethics of informal governance. Our focus has been on efficiency—cost stickiness, operational agility. But what about other values? Do the same governance mechanisms that promote lean operations also encourage ethical sourcing, environmental responsibility, or fair labour practices? Or do they crowd out those concerns, pushing firms toward narrow cost-cutting at the expense of workers, communities, or the environment? That is a critical question for future research, and it aligns directly with this journal's emphasis on social and environmental critique.

Third, the lived experience of governance. Quantitative studies like ours can show *that* trade credit reduces cost stickiness. But qualitative research exploring how owner-managers and suppliers actually negotiate trust, power, and monitoring in everyday practice would deepen our understanding enormously. How does a supplier raise a difficult question without damaging the relationship? How does an owner-manager receive that question as helpful rather than intrusive? These are not soft questions. They are the mechanisms through which informal governance actually works.

6.5. A Final Reflection

For decades, management accounting scholarship has largely assumed that effective cost control flows from *within* the firm—from formal budgets, internal audits, and hierarchically enforced discipline. That assumption has guided our research, our teaching, and our policy recommendations.

But the world does not always cooperate with our assumptions. Millions of SMEs operate in environments where those formal systems are weak, underdeveloped, or simply unavailable. And yet many of them survive. Many of them even thrive. How? Our answer—partial, provisional, but we think important—is that they build governance into their relationships. They use trade credit not just as financing but as a quiet, persistent source of discipline.

That is not a failure of governance. It is a different form of governance. And it deserves serious study, not dismissed as a second-best alternative to "real" control systems.

By taking informal mechanisms seriously, scholars and practitioners can better support the vital role that SMEs play in driving economic adaptability and growth. That is the contribution we offer. And we hope it opens a conversation about where governance actually lives—not just in boardrooms and budgets, but in the everyday relationships that sustain small businesses across the world.

Funding Declaration: The authors declare that no funds, grants, or other support were received during the preparation of this manuscript.

Ethical statements: This confirms that the current study used publicly available data and, therefore, needed no ethical approval or Informed consent.

Competing interests statement: Competing interests do not apply to this paper. So, there is no conflict of interest for this paper.

Data Availability Statement: Companies' data can be purchased via the TSE website at:

https://mabnadp.com/products/rahavard365

The relevant data is called 'rahavard-novin' and is available under the 'products' category and can be accessed at: https://mabnadp.com/products/rahavard-novin.

References

Agostino, M., & Trivieri, F. (2019). Does trade credit affect technical efficiency? Empirical evidence from Italian manufacturing SMEs. Journal of Small Business Management, 57(2), 576-592.
https://doi.org/10.1111/jsbm.12410

Aktas, N., Bodt, E.d., Lobez, F. and Statnik, J.-C. (2012). "The information content of trade credit". Journal of Banking & Finance, Vol. 36, No. 5, pp. 1402-13.
https://doi.org/10.1016/j.jbankfin.2011.12.001

Anderson, M.C., Banker, R.D. and Janakiraman, S.N. (2003). "Are selling, general, and administrative costs sticky?" Journal of Accounting Research, Vol. 41, No. 1, pp. 47-63.
https://doi.org/10.1111/1475-679X.00095

Askarany, D., Parsaei, M., & Ghanbari, N. (2024). Business strategy, short-term debt, and cost stickiness. Computational Economics, 64(3), 1913-1936.
https://doi.org/10.1007/s10614-024-10649-7

Banker, R. D., Basu, S., Byzalov, D., & Chen, J. (2013). Asymmetries in cost-volume-profit relation: Cost stickiness and conditional conservatism. Available at SSRN 2312179.
https://doi.org/10.2139/ssrn.2312179

Bhimani, A. (2009). Risk management, corporate governance and management accounting: Emerging interdependencies. Management Accounting Research, 20(1), 2-5.
https://doi.org/10.1016/j.mar.2008.11.002

Calleja, K., Steliaros, M., & Thomas, D. C. (2006). A note on cost stickiness: Some international comparisons. Management Accounting Research, 17(2), 127-140.
https://doi.org/10.1016/j.mar.2006.02.001

Cao, F., Ye, K., Zhang, N. and Li, S. (2018). "Trade credit financing and stock price crash risk". Journal of International Financial Management & Accounting, Vol. 29, No. 1, pp. 30-56.
https://doi.org/10.1111/jifm.12067

Chen, C. X., Lu, H., & Sougiannis, T. (2012). The agency problem, corporate governance, and the asymmetrical behavior of selling, general, and administrative costs. Contemporary Accounting Research, 29(1), 252-282. https://doi.org/10.1111/j.1911-3846.2011.01094.x

Cheng, S., Jiang, W. and Zeng, Y. (2018). "Does access to capital affect cost stickiness? Evidence from China*". Asia-Pacific Journal of Accounting & Economics, Vol. 25, No. 1-2, pp. 177-98. https://doi.org/10.1080/16081625.2016.1253483

Costa, M.D. and Habib, A. (2021). "Trade credit and cost stickiness". Accounting & Finance, Vol. 61, No. 1, pp. 1139-79. https://doi.org/10.1111/acfi.12606

Daga, S., Yadav, M. P., Paridhi, Yadav, K., & Gupta, V. (2025). Economic Growth and Environmental Sustainability: Analyzing the Dynamics of Greenhouse Gas Emissions in QUAD Countries. Australasian Accounting Business & Finance Journal, 19(4), 56-82. https://doi.org/10.14453/aabfj.v19i4.03

Dowling, G. (2002). Customer Relationship Management: In B2C Markets, Often Less is More. California Management Review, 44(3), 87-104. https://doi.org/10.2307/41166134 https://doi.org/10.2307/41166134

García-Teruel, P. J., & Martínez-Solano, P. (2010). Determinants of trade credit: A comparative study of European SMEs. International Small Business Journal, 28(3), 215-233. https://doi.org/10.1177/0266242609360603

Goel, K. K., Sapra, R., Sehrawat, N., Kumar, A., Paliwal, M., & Praveen, S. K. (2025). Can Corporate Consciousness Attract Capital? Meta-Analysing the Link Between Corporate Sustainability and Access to Finance. Australasian Accounting Business & Finance Journal, 19(4), 185-211. https://doi.org/10.14453/aabfj.v19i4.08

Kalra, J., Roehrich, J. K., Squire, B., & Davies, A. (2024). Orchestrating project networks to deliver local economic and social value. California Management Review Insights.

Kim, W. S., Lee, S. H., Lee, K. J., & Park, K. (2024). Trade credit and firm value in business groups: evidence from Korea. Asia-Pacific Journal of Accounting & Economics, 31(4), 672-695. https://doi.org/10.1080/16081625.2024.2336133

Kumar, V., & Kotler, P. (2024). A market management approach to transformative business operations. Marketing Strategy Journal, 1, 100005. https://doi.org/10.1016/j.msj.2025.100005

Mathath, N., & Kumar, V. (2024). Unlocking Trade Credit Opportunities and Working Capital Efficiency through ESG Disclosure. Australasian Accounting Business & Finance

Journal, 18(3), 125-141.
https://doi.org/10.14453/aabfj.v18i3.08

Meckling, W. H., & Jensen, M. C. (1976). Theory of the Firm. Managerial behavior, agency costs and ownership structure, 3(4), 305-360.
https://doi.org/10.1016/0304-405X(76)90026-X

Nassirzadeh, F., Askarany, D. and Arefi-Asl, S. (2023). "The relationship between changes in corporate governance characteristics and intellectual capital". Journal of Risk and Financial Management, Vol. 16, No. 2, p. 133.
https://doi.org/10.3390/jrfm16020133

Patatoukas, P.N. (2012). "Customer-Base Concentration: Implications for Firm Performance and Capital Markets". The Accounting Review, Vol. 87, No. 2, pp. 363-92.
https://doi.org/10.2308/accr-10198

Pfeffer, J., & Salancik, G. (2015). External control of organisations-Resource dependence perspective. In Organisational behavior 2 (pp. 355-370). Routledge.

Pouryousof, A., Nassirzadeh, F., Hesarzadeh, R. and Askarany, D. (2022). "The Relationship between Managers' Disclosure Tone and the Trading Volume of Investors". Journal of Risk and Financial Management, Vol. 15, No. 12, p. 618.
https://doi.org/10.3390/jrfm15120618

Senn, C., Thoma, A., & Yip, G. S. (2013). Customer-Centric Leadership: How to Manage Strategic Customers as Assets in B2B Markets. California Management Review, 55(3), 27-59.
https://doi.org/10.1525/cmr.2013.55.3.27

Stouthuysen, K., Slabbinck, H., & Roodhooft, F. (2017). Formal controls and alliance performance: The effects of alliance motivation and informal controls. Management Accounting Research, 37, 49-63.
https://doi.org/10.1016/j.mar.2017.03.002

Tileal, M. A. S., Nassirzadeh, F., & Askarany, D. (2025). The Impact of State Ownership on Labour Cost Stickiness across Strategic and Non-Strategic Industries in Developing Economies. Journal of Economic Studies.
https://doi.org/10.1108/JES-06-2024-0389

Tileal, M. A. S., Nassirzadeh, F., Saei, M. J., & Askarany, D. (2023). The Impact of Ownership Type on Labour Cost Stickiness. Journal of Risk and Financial Management, 16(5), 268.
https://doi.org/10.3390/jrfm16050268

Wang, F., Li, J., Anderson, M., & Sun, J. (2025b). Political control and internal governance in state-owned enterprises: Evidence from party-building reform in China. Management

Accounting Research, 66, 100923. https://doi.org/https://doi.org/10.1016/j.mar.2024.100923 https://doi.org/10.1016/j.mar.2024.100923

Wang, Y., Song, X., & Zhou, J. (2025a). Does firms' digitalisation affect trade credit provision? Asia-Pacific Journal of Accounting & Economics, 32(2), 329-357. https://doi.org/10.1080/16081625.2024.2356108

Yamada, K., & Honjo, Y. (2020). Petty cash from parents: Provision of liquidity to spin-offs by trade credit channel. Journal of Small Business Management, 58(5), 923-947. https://doi.org/10.1111/jsbm.12538