

Does Business Strategy Influence Interfirm Financing? Evidence from Trade Credit

Abstract

This paper investigates the impact of business strategy on firms' trade credit policies. We find that firms following an innovation-oriented strategy (prospectors) offer significantly more trade credit to their customers than those following an efficiency-oriented strategy (defenders). Furthermore, by exploiting two exogenous shocks to the supplies of high-skill employees and bank credit, we find that prospectors curtail trade credit in response to the reduction of talent mobility following the adoption of Inevitable Disclosure Doctrine, whereas defenders significantly increase provisions of trade credit following the increase in bank credit supply due to the relaxation in interstate branching regulations. Additional evidence substantiates that prospectors increasing trade credit provisions enjoy higher sales generation efficiency and superior performance. Finally, our supply chain analysis documents that prospectors also receive significantly more trade credit from their suppliers. Collectively, our findings highlight that business strategy is an important yet intrinsic determinant of supply chain financing.

Keywords: Business Strategy; Trade Credit; Supply Chain Financing; Customer-Supplier Relationship; Prospector; Defender

JEL Classifications: G30; G32; L10; L14

1. Introduction

Granted by sellers to buyers to enable customers to purchase goods or services without immediate payment, trade credit is not only a prevalent practice but also the most important source of short-term external finance for firms (e.g., Barrot, 2016; Petersen and Rajan, 1997; Rajan and Zingales, 1995; Seifert et al., 2013). Ng et al. (1999) show that trade credit financed about \$1.5 trillion of assets and represented approximately 2.5 times the combined value of all new debt and equity issues annually in the 1990s. Levine et al. (2018) find that trade credit accounts for 25% of firms' total debt liability across 34 countries from 1990 to 2011. Also, Yang and Birge (2017) find that trade credit is 1.3 times as large as bank loans. By separating the delivery of goods and services from immediate receipt of payment, trade credit, as an important source of external financing, is responsible for global trade of more than \$25 trillion (Klapper et al., 2012). Given the important economic significance from both micro- and macroeconomic perspectives, a number of studies have focused on the question of why firms provide or extend trade credit (e.g., Barrot, 2016; Bias and Gollier, 1997; Box et al., 2018; Burkart and Ellingsen, 2004; Petersen and Rajan, 1997; Yang and Birge, 2017).

Prior studies on trade credit primarily investigate the determinants of firms' trade credit policies and motives for providing trade credit (e.g., Choi & Kim, 2005; Cosci, Guida, & Meliciani, 2020; Giannetti, Burkart, & Ellingsen, 2011; Klapper et al., 2012; Ng et al., 1999; Petersen & Rajan, 1997). While much of the literature examines both financial and non-financial motives for trade credit provision, no investigation has considered the role of business strategy in shaping firms' trade credit policies. In this paper, we aim to fill the research void above and provide new insight into the determinants of trade credit policies by examining trade credit provision practices between firms pursuing distinctly different business strategies.

To address our research questions, we follow previous studies (e.g., Bentley et al., 2013; Higgins et al., 2015; Ittner et al., 1997) and adopt Miles and Snow's (1978, 2003) theoretical business strategy framework to examine whether the extent to which a firm follows a particular business strategy affects trade credit policies. Miles and Snow (1978, 2003) identify three viable business strategies that may exist simultaneously within industries, namely prospectors, defenders, and analyzers. These strategies are positioned along a continuum, with prospectors at one endpoint and defenders at the other. A majority of firms, referred to as analyzers, have attributes of both prospectors and

defenders, constituting the middle of the continuum. Specifically, defenders follow an efficiency-oriented and cost leadership strategy and tend to maintain a narrow and stable product focus to compete on the basis of price, service, or quality (Miles & Snow, 1978, 2003). Hence, rather than aggressively pursuing new opportunities, defenders carefully plan before making decisions, minimize their exposure to risk and uncertainty, strive to maintain organizational and operational stability, and sell products that have readily available substitutes (Miles & Snow, 1978, 2003). In contrast, prospectors following an innovation-orientated strategy make constant changes in their product market mix and strive to be the leaders in the innovative market in numerous domains. As such, prospectors embrace uncertainty, aggressively pursue new market opportunities, and are likely to sell unique products that do not have viable substitutes (Miles & Snow, 1978, 2003)¹.

Based on the distinctive features of prospectors and defenders, we argue that firms pursuing different business strategies are likely to have distinctive trade credit policies. On the one hand, prospectors may offer more trade credit to stimulate customer demand as they enter new markets. Since prospectors need to sell innovative products that do not have readily available substitutes, trade credit provided by prospectors can serve as an implicit guarantee of product quality and a good marketing tool to motivate and educate their customers (Higgins et al., 2015; Ittner et al., 1997; Levy, 1985). Furthermore, previous studies (Rajagopalan, 1997; Simons, 1987; Singh & Agarwal, 2002) suggest that prospectors are more tolerant of risk and uncertainty, thus they are likely to offer more trade credit than other firms.

Unlike prospectors, defenders follow an efficiency-driven strategy that minimizes their costs and exposure to uncertainty. Given their risk aversion and cost minimization, defenders are expected to offer less trade credit to their customers, due to the credit risks and financing costs related to trade credit provision. However, defenders may also have incentives to provide more trade credit to their customers. For example, in line with their cost-minimization strategy, defenders may use trade credit to shift inventory and reduce excessive costs of holding inventories. Additionally, given its emphasis on price within a very narrow product market (Miles & Snow, 1978, 2003), defenders may also use trade credit as a marketing tool to stimulate sales in a highly

¹ In our sample, examples of prospectors include “Tesla Inc.”, “Amazon Inc” and “Intel Inc.” whereas examples of defenders include “US 1 Industries”, “New Jersey Steel Corp” and “Versa Inc.”. The characteristics of these examples are in line with the Miles and Snow (1978, 2003) framework and highly consistent with the previous studies (Bentley et al., 2013; Higgins et al., 2015). For more examples of prospectors and defenders, please see Appendix 3 of Bentley et al. (2013) and Appendix 1 of Higgins et al. (2015).

competitive market environment. Based on the discussion and theoretical tension above, the influence of business strategy on trade credit remains an important empirical question.

Meanwhile, given firms are facing ever-changing external environments, it is important to understand how prospectors and defenders may behave and react differently in their trade credit policies in response to exogenous changes in talent and credit supplies. Given that prospectors focus on an innovation-oriented strategy that emphasizes R&D and exploits new products by leveraging the knowledge and skills of their employees (Bentley et al., 2013; Miles & Snow, 1978, 2003), prospectors, by default, have a high reliance on skilled labor that offers competitive advantages. On that basis, we examine the influence of talent supply on the relationship between business strategy and trade credit by exploiting the staggered adoption of the Inevitable Disclosure Doctrine (IDD) by the U.S. state courts as an exogenous shock that significantly reduces the mobility of high-skilled employees (Ali et al., 2019; Callen et al., 2020; Chemmanur et al., 2018; Glaeser, 2018; Z. He, 2018; Klasa et al., 2018; Y. Li et al., 2018; Qiu & Wang, 2018). Since the reduction in talent supply would significantly undermine the viability of such an innovation-driven business strategy, we hypothesize that firms following innovation-oriented strategies will reduce the use of trade credit. In contrast, since defenders are less reliant on high-skilled talents relative to prospectors, we predict that the reduction of talent supply is less likely to affect defenders' trade credit decisions.

Furthermore, we also examine the impact of exogenous variation in bank credit supply on the relationship between business strategy and trade credit. Existing literature shows that the availability of credit supply from banks influences firms' trade credit provision (Cuñat, 2007; Fabbri & Klapper, 2016; Klapper et al., 2012; Ng et al., 1999; Shenoy & Williams, 2017). We follow prior studies and exploit the exogenous state-level variation in interstate banking deregulation after the enactment of the Interstate Banking and Branching Efficiency Act (IBBEA) (Rice & Strahan, 2010; Shenoy & Williams, 2017) to test whether firms that follow particular business strategies adjust their trade credit policies in response to the relaxed bank branching restrictions and the greater access to bank credit. Given that defenders focus more on cost-minimization and are sensitive to financing costs (Miles & Snow, 1978, 2003), we hypothesize that firms following an efficiency-oriented strategy are likely to offer more trade credit when bank credit is cheaper and more accessible.

Using a large sample of U.S. listed firms over the period of 1962-2019, we find strong evidence that business strategy is positively associated with trade credit provision. Specifically, firms pursuing an innovation-oriented strategy (i.e., prospectors) provide significantly more trade credit to their customers than those following an efficiency-oriented strategy (i.e., defenders). We interpret our findings as evidence that prospectors employ generous trade credit policies to proactively appeal to a larger customer base and build favorable relationships with their customers. Our main results are robust to different sample compositions when we exclude analyzers, alternative measures of trade credit, the inclusion of individual business strategy components, a propensity-score-matched (PSM) sample, and an instrumental variable (IV) approach to address potential endogeneity problems.

In our second hypothesis testing on talent supply, we find that prospectors curtail trade credit in response to the reduction of talent mobility following the adoptions of IDD, whereas we do not find such adjustment in trade credit amongst defenders, which are less dependent on high-skill talent. These distinct reactions between prospectors and defenders to the reduction of talent supply suggest that innovation-oriented firms are more reliant on human capital and adjust their trade credit policies in accordance with the talent supply. Consistent with our third hypothesis on credit supply, we find that defenders significantly increase (cut) the provisions of trade credit in states where interstate banking regulations are relaxed (strict), while prospectors do not adjust their trade credit provisions. We interpret these contrasting reactions as evidence consistent with prospectors being more reliant on trade credit than defenders which, on the other hand, are very sensitive to the availability and costs of bank credit and adjust their trade credit provision according to bank credit supply.

In our cross-sectional analysis, we investigate the influence of inventory and financial health to explore the heterogeneity of the relationship between business strategy and trade credit. Previous literature shows that the transaction costs (e.g., storage costs) of inventories can be an important motive for firms to offer trade credit to their customers (Bougheas et al., 2009b; Daripa & Nilsen, 2011; Emery, 1987; Mateut et al., 2015; Petersen & Rajan, 1997). This operational motive implies that suppliers may use trade credit to stimulate demand and shift inventory transaction costs to buyers. Hence, we argue that the effect of business strategy on trade credit will be more pronounced for firms with high levels of inventories because those firms have stronger incentives

to use trade credit to lower their inventory and transaction costs. Consistent with our prediction, our cross-sectional results show that the positive effect of business strategy on trade credit is more salient for firms with excessive levels of inventories. Next, we also investigate the influence of financial conditions on the relationship. Firms may be more willing to provide or extend trade credit to their customers if they can access external finance, whereas firms are reluctant to provide trade credit when they are financially constrained or distressed (Barrot, 2016; Molina & Preve, 2009, 2012; Murfin & Njoroge, 2015). Hence, we expect that the positive effect of business strategy on trade credit will be more pronounced for firms with high external financial dependence but less pronounced for financially constrained and distressed firms. Indeed, in line with our prediction, our results endorse this expectation. In additional tests, we find that prospectors with increases in trade credit provision enjoy higher sales generation efficiency and superior performance. Our supply chain analyses show that prospectors, in return, also receive significantly more trade credit, relative to the defenders, from their suppliers.

Our study contributes to the literature in several aspects. First, our study contributes to the emerging literature on the impact of business strategy on corporate decisions (Bentley-Goode et al., 2019; Bentley et al., 2013; Habib & Hasan, 2017; Higgins et al., 2015; Lim et al., 2018; Teirlinck, 2020; Yuan et al., 2020). We extend this line of research by showing that firms following an innovation-oriented business strategy not only offer more trade credit to customers but also receive more trade credit from their suppliers. These findings reveal that the business strategies can influence the interplay between customers and suppliers through the use of trade credit, an important source of inter-firm financing, thus profoundly shaping the customer-supplier relationship across the supply chain.

Second, we also contribute to the extant literature on trade credit. While much of the literature on corporate finance tends to focus on the financial determinants of trade credit policies, we present new evidence that a firm's business strategy, which is normally determined at the very early stage of company life, is an intrinsic yet unexplored determinant of trade credit, a major source of short-term financing widely used by corporates around the world. Crucially, given business strategy is typically very stable over the life of a company, our finding suggests that its impact on trade credit decisions is therefore expected to be long-lasting and profound. Thus, our study adds to the understanding of the underlying determinants of trade credit policies.

Third, our study also provides evidence regarding the implications of changes in the legal and regulatory environment for firms' trade credit policies. In particular, our results show that firms pursuing distinctive business strategies react differently in their trade credit provision when facing exogenous changes in talent and bank credit supply. Hence, our findings also contribute to the relevant literature (e.g., Glaeser, 2018; Klasa et al., 2018; Rice and Strahan, 2010; Shenoy and Williams, 2017) and provide strong policy implications that complete our understanding of the consequences of these legislative changes and how they affect firms' trade credit policies and potentially supplier-customer relationships.

Finally, our study also offers important managerial and policy implications. In light of the ever-increasing market competition in today's economy, firms are constantly striving to be more innovative or efficient to remain competitive and successful. Hence, our findings suggest that managers of innovative firms can use trade credit as an effective and strategic tool not only to build favorable relationships with their customers but also to improve operational and market performance. Given the strategic importance of innovation to the economy, policymakers should consider offering additional financial support to enable innovation-oriented firms to offer trade credit. Overall, our study sheds light on how distinctive business strategies shape decisions on trade credit and highlights the potential benefits of trade credit as an alternative financing source that can improve the financial resilience of the supply chain.

The remainder of the paper is structured as follows. Section 2 reviews existing literature and develops our main hypothesis. Section 3 presents the research design, discusses the data and variables, and provides descriptive statistics. Section 4 presents our main empirical analyses. Section 5 presents and discusses the results of additional analyses. Section 6 discusses the contribution and implications of our study.

2. Literature review and hypothesis development

2.1 Trade credit

The extent to which business strategy affects a firm's trade credit policies depends on how the features of each strategic type (i.e., strategic focus, risk and uncertainty preferences, and product characteristics) influence the trade-offs between the benefits and costs associated with trade credit provision. To test the extent to which following particular business strategies can affect trade credit

policies, we first review the literature articulating the various motives, benefits and costs associated with trade credit. Then, based on the characteristics of each strategy type, derived from Miles and Snow's (1978, 2003) theoretical business strategy framework, we develop our main hypothesis regarding the influence of business strategy on trade credit policies.

Previous literature on trade credit shows that there are at least three motives for firms to provide trade credit and documents that there is a trade-off between the benefits and costs associated with trade credit provision. First, providing trade credit may lead to an increase in demand or market share (e.g., Biais and Gollier, 1997; Cuñat, 2007; Garcia-Appendini and Montoriol-Garriga, 2013; Meltzer, 1960; Schwartz, 1974). Meltzer (1960) and Schwartz (1974) suggest that sellers who provide trade credit to illiquid customers can stimulate demand for transacted products. Consistently, Garcia-Appendini and Montoriol-Garriga (2013) show that offering trade credit not only provides immediate liquidity to their customers but also sends a positive signal regarding customers' creditworthiness, which may ultimately generate financial benefits for suppliers through additional revenue (Biais & Gollier, 1997). Second, trade credit can also be considered as an implicit guarantee of product quality and a marketing tool to stimulate sales and obtain a competitive advantage in product markets (Daripa & Nilsen, 2011; Dass et al., 2015; Fabbri & Klapper, 2016; Lee & Stowe, 1993; Long et al., 1993; Petersen & Rajan, 1997). By separating the delivery of goods and services from immediate receipt of payment, trade credit provides customers with a net period to evaluate product quality before remitting payment, thus lowering the information asymmetries regarding product quality. Moreover, trade credit is also considered as a less aggressive and more flexible instrument than price reduction in market competition (Fabbri & Klapper, 2016). Third, firms also derive operational benefits from offering trade credit to their customers. For instance, firms can smooth the demand for their products by adjusting their trade credit terms to cope with uncertain demand (Emery, 1987). The use of trade credit also facilitates firms to lower inventory carrying costs (e.g., storage costs) by converting inventories to receivables (Bougheas et al., 2009b; Daripa & Nilsen, 2011; Emery, 1987; Ferris, 1981; Petersen & Rajan, 1997).

Despite the widespread use of trade credit and the associated benefits discussed above, there are also potential costs and risks associated with trade credit, such as reduced liquidity, higher financing costs, and default risks. One straightforward risk implication of trade credit is that suppliers providing trade credit increase their risk exposure if their customers fail to repay them

and bad debt losses occur. In particular, previous studies show that trade credit can be extremely costly for financially constrained firms because the investment and liquidity of those firms will be adversely affected by carrying receivables (Barrot, 2016; Murfin & Njoroge, 2015).

2.2 Business strategy

While the factors discussed above are considered primary determinants and motives for trade credit provision, the literature remains largely silent on whether and how trade credit policies may be affected by business strategy. Given that business strategies have an underlying influence on directing how firms develop, the omission of the impact of business strategy on trade credit policies seems surprising. To compete in their respective market environments, firms align their strategies with different patterns of product, market domain, technology, and organization structure and process (Bentley et al., 2013; Hambrick, 1983; Higgins et al., 2015; Ittner et al., 1997; Lim et al., 2018; Martinez-Simarro et al., 2015; Miles & Snow, 1978, 2003; Milgrom & Roberts, 1995). Consequently, the influence of business strategy is profound, fundamentally affecting firms' operations, and the design and implementation of their policies, including trade credit policies.

The management literature has developed numerous typologies of business strategy that describe how companies compete in their respective lines of business (March, 1991; Miles & Snow, 1978, 2003; Porter, 1980; Treacy & Wiersema, 1995). For instance, Porter (1980) categorizes business strategies into either cost leadership or product differentiation. March (1991) identifies business strategies as either exploitative or explorative. Treacy and Wiersema (1995) distinguish business strategies in terms of operational excellence, product leadership, and customer intimacy. While the labels for business strategy types vary across typologies, there are overlaps among the various typologies, and competitive strategy can be broadly conceptualized as a continuum between two different strategic orientations. The business strategy typology of Miles and Snow (1978, 2003) is one of the well-cited business strategy theories. There is a stream of recent empirical research that employs Miles and Snow's (1978, 2003) theoretical business strategy framework and investigates the influence of business strategy (Bentley-Goode et al., 2019; Bentley et al., 2013; C. J. Chen et al., 2018; Y. Chen et al., 2017; Higgins et al., 2015; Ittner et al., 1997; Lim et al., 2018; Lin et al., 2021; Teirlinck, 2020; Yuan et al., 2020). For instance, Bentley et al. (2013) find that firms following an innovation-oriented strategy (i.e., prospectors) have a higher propensity to experience

an Accounting and Auditing Enforcement Release (AAER), lawsuit, or restatement than those following an efficiency-oriented strategy (i.e., defenders). Also, Higgins et al. (2015) show that prospectors tend to engage in more tax-avoidance behaviors and to take more aggressive and less sustainable tax positions than defenders. Moreover, Ittner et al. (1997) investigate the influence of business strategy on CEO compensation schemes and find that prospectors are more likely to use non-financial measures in CEO bonus contracts. Lim et al. (2018), meanwhile, find that prospectors have lower levels of annual report readability relative to firms pursuing a defender strategy. Finally, Chen et al. (2017) show that prospectors have a higher propensity to receive both ‘going concern’ and ‘material weakness’ opinions.

2.3 Hypothesis development

The prior empirical studies discussed above together with the theoretical framework of Miles and Snow (1978, 2003) guide our investigation of the relationship between business strategy and trade credit policies. In particular, Miles and Snow’s (1978, 2003) theoretical business strategy framework identifies two viable and distinct business strategies that are positioned along the continuum, with prospectors at one extreme and defenders at the other.² Prospectors, at the one end of a strategic continuum defined by Miles and Snow (1978, 2003), align with Porter’s product differentiation, March’s exploration, and Treacy and Wiersema’s product leadership. According to Miles and Snow (1978, 2003), prospectors following an innovation-oriented strategy embrace uncertainty and encourage risk-taking. Specifically, prospectors attempt to identify and exploit new product and service market opportunities. They are oriented toward R&D and marketing and tend to sell differentiated products that do not have viable substitutes, which requires them to maintain technological flexibility for a diverse product mix, to adapt quickly to changes and uncertainties in the external environment, and to follow a ‘first to market’ strategy in a broad array of product-market domains (Miles & Snow, 1978, 2003). Prospectors display rapid growth patterns, often in spurts, due to the aggressive pursuit of new opportunities by entering into new product and geographic markets (Miles & Snow, 1978, 2003).

Based on the above characteristics, prospectors are expected to provide more trade credit to

² While the Miles and Snow (1978, 2003) typology proposes three viable business strategies, we follow previous empirical research in management and accounting (e.g. Ittner et al., 1997; Bentley et al., 2013; Higgins et al., 2015; Lim et al., 2018) and primarily focus our analyses and discussion on two viable and distinct strategies that comprise the endpoints of their strategy continuum, namely prospectors and defenders.

their customers to stimulate demand for their transacted products as they enter new geographic and product markets and respond to constant change. Also, since prospectors following innovation-oriented strategy aggressively identify new product and geographic markets and sell differentiated products that do not have readily available substitutes, they are likely to spend more effort on motivating, educating, and informing their customers via marketing (Higgins et al., 2015; Ittner et al., 1997; Levy, 1985). Therefore, trade credit provided by prospectors can serve as an implicit guarantee of product quality and a good marketing tool to stimulate demand and obtain a competitive advantage when entering new markets. Moreover, previous studies (Rajagopalan, 1997; Simons, 1987; Singh & Agarwal, 2002) suggest that prospectors encourage risk-taking behavior by emphasizing long-term, stock-based compensation incentives. Hence, prospectors' risk-taking preference in compensation arrangements and their attitudes towards uncertainty provide management with strong incentives to be risk-tolerant about the costs and risks associated with trade credit (e.g., reduced liquidity, higher financing costs, and default risks) and thereby encourage its provision.

In contrast, at the opposite end of the continuum, Miles and Snow (1978, 2003) define defenders as firms that pursue an efficiency-oriented strategy, similar to Porter's cost leadership, March's exploitation, and Treacy and Wiersema's operational excellence. Unlike prospectors, defenders following an efficiency-oriented strategy minimize their exposure to risk and uncertainty. In particular, defenders tend to provide a stable set of products that are more likely to have viable substitutes; they do not aggressively pursue new opportunities, and consequently have a narrow market focus and stable operations. Moreover, instead of emphasizing R&D and marketing, defenders stress the finance and production functions. As such, compared to prospectors, defenders focus on improvements in current efficiency to reduce costs. Thus, defenders tend to display cautious and incremental growth patterns where they achieve low and steady growth mainly through market penetration of their narrowly focused product lines (Miles & Snow, 1978, 2003).

Given their aversion to risk and uncertainty, defenders should be reluctant to provide trade credit to their customers, because carrying receivables exposes them to significant credit risks (e.g., liquidity risk, default risks). Moreover, the use of trade credit may also lead to higher financing costs that usually accompany an increase in trade credit provision or extension. Hence, as defenders following an efficiency-oriented strategy strive to be cost-efficient, they are likely to have lower

trade credit provision.

However, defenders also have attributes that provide them with incentives to offer or extend more trade credit to their customers. First, trade credit can facilitate firms following a cost-minimization strategy to reduce carrying costs of inventories, if selling on credit contributes to higher order volume. Second, unlike prospectors aggressively pursuing new products and market opportunities, defenders usually maintain a narrow product focus and compete primarily on price, service, or quality (Miles & Snow, 1978, 2003). Hence, trade credit provision can also be used by defenders as a marketing tool to stimulate sales, thus resulting in a competitive advantage for defenders' products that generally have readily available substitutes in product markets. Third, prior studies argue that defenders have more stable profitability and growth patterns. For example, Ittner et al. (1997) suggest that defenders are less likely to suffer financial distress in comparison with prospectors. Also, Hambrick (1983) shows that defenders have consistently higher operating cash flow and return on investment ratios relative to prospectors. Thus, defenders tend to have more stable financial positions to provide trade credit to their customers.

Based on the preceding discussion, while prospectors and defenders have competing attributes that may affect their trade credit policies, we find it is hard to predict which strategy leads to more trade credit provision. Given the mixed arguments and predictions above, the influence of business strategy on trade credit provision is ultimately an empirical question. Hence, we develop two competing hypotheses as follows:

Hypothesis 1a: Firms following an innovation-oriented strategy (i.e., prospectors) offer more trade credit to customers, relative to firms following an efficiency-oriented strategy (i.e., defenders).

Hypothesis 1b: Firms following an efficiency-oriented strategy (i.e., defenders) offer more trade credit to customers, relative to firms following an innovation-oriented strategy (i.e., prospectors).

2.3.1 The role of talent supply

Based on Miles and Snow (1978, 2003), firms following prospector strategy are innovation-oriented. The success of corporate innovation hinges heavily on high-skilled talents, who possess valuable skills and expertise as well as proprietary knowledge, all of which are essential to continuous innovation (Almeida & Kogut, 1999; Breschi & Lissoni, 2001; J. Chen, Leung, & Evans,

2016; Samila & Sorenson, 2011; Simpson & Tamayo, 2020). Given that human capital is the underpinning driver of corporate innovation, a sustainable talent supply is indispensable and vital for the effective implementation and success of the innovation-oriented business strategy pursued by prospectors.

To test how prospectors adjust trade credit policies when their innovation ability is significantly undermined, we exploit the staggered adoptions of the Inevitable Disclosure Doctrine (IDD) by the U.S. state courts as exogenous shocks to the mobility and supply of high-skilled employees in the labor markets in certain U.S. states. Effectively, IDD prohibits an employee with access to proprietary knowledge of a firm from working for its competitors, to prevent the leakage of trade secrets to its rivals by the departing employee.³ Previous studies have empirically verified that IDD legislation significantly limits the mobility of high-skilled employees, who are most likely to possess firm-specific proprietary information and business intelligence that are crucial to continuous innovation (Klasa et al., 2018; Png & Samila, 2015). Also, several human capital studies present consistent evidence that reduction in employee mobility severely hinders innovation due to limited inter-firm knowledge spillover and challenges in searching and matching the right candidates in a smaller talent pool (Marx et al., 2015; Samila & Sorenson, 2011; Yin et al., 2017). On top of this, even though IDD in a way enables employers to force the retention of their key talents, Contigiani et al. (2018) find that the incumbent employees' innovation output is also hindered due to the lack of external job opportunities.⁴

Given that the exogenous reduction in talent supply caused by IDD legislation could significantly hamper prospectors' innovation capability and efficiency (Contigiani et al., 2018; Samila & Sorenson, 2011), we argue that IDD would consequently undermine the viability and effectiveness of such an innovation-driven business strategy for firms based in IDD states. Thus, prospectors in states subject to IDD laws might be less innovative and relatively more efficiency-driven, compared with prospectors in non-IDD states. Hence, we predict that in response to exogenous shocks to talent supply, prospectors in IDD states will reduce the use of trade credit. In contrast, relative to prospectors, defenders are relatively less reliant on high-skilled talents and instead focus on efficiency improvement and cost control. Therefore, the reduction of high-skilled

³ For more details on IDD legislation, please see page 271-272 of Klasa et al. (2018).

⁴ On the other hand, many studies have shown that favourable employee treatment and employee-friendly laws are conducive to innovation (Acharya et al., 2014; Chang et al., 2015; C. Chen et al., 2016; J. Chen et al., 2016; Fauver et al., 2018; Mao & Weathers, 2019).

talent supply is more likely to have a greater impact on prospectors than defenders in terms of trade credit provision (Aobdia, 2018; Klasa et al., 2018; Marx et al., 2009; Qiu & Wang, 2018). In line with the above predictions, we postulate the following hypotheses as follows:

Hypothesis 2a: Firms following an innovation-oriented strategy (i.e., prospectors) significantly reduce trade credit to customers in response to the exogenous reduction in talent supply.

Hypothesis 2b: Firms following an efficiency-oriented strategy (i.e., defenders) do not change their trade credit provision to customers in response to the exogenous reduction in talent supply.

2.3.2 The role of credit supply

In addition, we also investigate how firms following different business strategies might adjust their trade credit policies in response to changes in credit supply. Previous studies find that the bank branching deregulation significantly increases the credit supply and bank competition, thus leading to cheaper and more accessible bank credit (Black & Strahan, 2002; Castellani & Afonso, 2021; Jayaratne & Strahan, 1996; Rice & Strahan, 2010; Shenoy & Williams, 2017). Based on the prior literature, bank deregulations might influence the relationship between business strategy and trade credit in opposite directions. On the one hand, the increase in credit supply after bank deregulations means that suppliers have easier and cheaper access to bank credit so that they can afford a more aggressive use of trade credit to customers (Shenoy & Williams, 2017). At the same time, however, better bank credit availability could also motivate customers to substitute cheaper bank credit for suppliers' trade credit, making customers less reliant on trade credit to finance transactions (Bastos & Pindado, 2013; Klapper et al., 2012; Shenoy & Williams, 2017). In response, suppliers may reduce trade credit provisions to customers who can already afford purchases with bank loan facilities. In light of the competing predictions above, how firms pursuing different business strategies might adjust their credit policies in reaction to the credit supply shocks is itself both a relevant and interesting empirical question. Given that defenders focus more on cost-minimization and are sensitive to financing costs (Miles & Snow, 1978, 2003), we expect that firms following an efficiency-oriented strategy are likely to offer more trade credit when bank credit is cheaper and more accessible. However, it is also possible that having access to cheaper bank credit reduces customers' demand for trade credit from suppliers. Thus, defenders may also lower their

trade credit when their customers can access cheaper bank credit. Therefore, based on the competing predictions above, it is unclear how defenders adjust their trade credit provision in response to the increased bank credit supply.

Based on the competing predictions on the effect of bank credit on trade credit (Bastos & Pindado, 2013; Klapper et al., 2012; Shenoy & Williams, 2017), prospectors may also adjust their trade credit provision in different directions. On the one hand, with access to cheaper bank credit, prospectors can afford to offer more generous trade credit. Therefore, prospectors may increase their trade credit provision to their customers after the exogenous increase in bank credit supply. On the other hand, when facing cheaper bank credit, customers of prospectors may no longer require as much trade credit as they previously demanded. Thus, prospectors may also reduce their trade credit provision when their customers can directly access cheaper credit from banks. In addition, since prospectors are insensitive to financing costs associated with trade credit provision, it is also possible that prospectors may not significantly adjust their trade credit policies due to changes in bank credit supply.

Based on the multiple predictions above for defenders and prospectors, it is unclear how defenders and prospectors respond to the changes in bank credit supply in their trade credit policies. We hereby propose and test our hypotheses in null form with no directional prediction:

Hypothesis 3a: Firms following an efficiency-oriented strategy (i.e., defenders) do not change their trade credit provision to customers when there is an increase in bank credit supply.

Hypothesis 3b: Firms following an innovation-oriented strategy (i.e., prospectors) do not change their trade credit provision to customers when there is an increase in bank credit supply.

3. Research design

3.1 Business strategy composite measure

Following previous empirical research (e.g., Bentley et al., 2013; Higgins et al., 2015; Ittner et al., 1997; Lim et al., 2018; Teirlinck, 2020), we use an archival measure of the Miles and Snow (1978, 2003) business strategy typology developed by Bentley et al. (2013) to assign firms to different strategic types. Specifically, we compute a discrete *STRATEGY* composite measure to proxy for a firm's business strategy, and higher *STRATEGY* scores indicate firms with prospector strategies

and lower scores indicate firms with defender strategies. In light of prior studies (e.g., Bentley et al., 2013; Higgins et al., 2015; Ittner et al., 1997; Lim et al., 2018), we use the following six characteristics to construct STRATEGY: (1) Research intensity (*RD5*); (2) the ratio of employees to sales (*EMPS5*); (3) a historical growth measure which is the one-year percentage change in total sales (*REV5*); (4) the ratio of SG&A to sales (*SGA5*); (5) employee fluctuation measured as the standard deviation of total employees (*EMP5*); and (6) capital intensity measured as the net PPE scaled by total assets (*CAP5*). Each of the six variables captures a different dimension of a firm's business strategy.

The ratio of R&D to sales (*RD5*) reflects a firm's propensity to seek new products and services. Since prospectors are oriented toward innovation and rapidly change their product market mix to be innovative market leaders in numerous domains, they are expected to have higher R&D costs than defenders (Hambrick, 1983; Ittner et al., 1997).

The ratio of employees to sales (*EMPS5*) serves as a proxy for a firm's ability to produce and distribute its goods and services efficiently (Higgins et al., 2015; Thomas et al., 1991). Given defenders' focus on organizational efficiency and their high organizational and operational stability, they are expected to have higher ratios of employees to sales than prospectors, who engage in innovative activities that are characterized by uncertainties and risks.

The one-year percentage change in sales (*REV5*) is a proxy for a firm's historical growth or investment opportunities. Prospectors are likely to display rapid growth patterns and growth may occur in spurts by entering new product and geographic markets. Defenders, on the other hand, tend to display low but steady growth through market penetration of their narrowly focused product line (Miles & Snow, 1978, 2003; Shortell & Zajac, 1990). Hence, prospectors are expected to have greater growth than defenders.

The ratio of SG&A expenditure to total sales (*SGA5*) captures a firm's focus on marketing and sales (Bentley et al., 2013). Since prospectors tend to pursue new opportunities by entering into new markets and sell differentiated products that do not have viable substitutes, they are likely to spend more time motivating, educating, and informing their customers via marketing and advertising (Higgins et al., 2015; Ittner et al., 1997; Levy, 1985). In contrast, defenders develop closely related well-established products that are already familiar to customers, and therefore they rely less on marketing and advertising. Thus, prospectors are expected to have higher SG&A

expenditures than defenders.

Employee fluctuation (*EMP5*) is measured as the standard deviation of the number of employees over the prior five years (Bentley et al., 2013). Employees in defenders received familiarization training on firms' operations and they do not generally possess a wide range of skills that would allow them to be highly mobile across firms (Naiker et al., 2008). Moreover, Miles and Snow (1978, 2003) show that defenders tend to have lengthy employee tenure and senior management is usually promoted from within the firm, which makes defenders likely to have low employee turnover. In contrast, employees of prospectors following an innovation-oriented strategy typically possess labor skills that allow them to move across firms and usually have shorter employee tenure. Unlike defenders, senior management in prospectors may be recruited externally (Lim et al., 2018; Thomas & Ramaswamy, 1996).

Finally, capital intensity (*CAP5*) is measured as the ratio of net PPE to total assets (Bentley et al., 2013). This ratio intends to capture a firm's focus on production assets (Higgins et al., 2015). Prior studies show that efficiency-orientated defenders are more capital intensive, to achieve economies of scale (Hambrick, 1983; McDaniel & Kolari, 1987). Defenders also typically invest heavily in cost-efficient technology and technological improvement to achieve routinization and mechanization (Miles & Snow, 1978, 2003). Conversely, prospectors are less capital intensive because they maintain a low degree of mechanization and routinization, and primarily rely on the knowledge and skills of their labor (Bentley et al., 2013; Miles & Snow, 1978, 2003). Therefore, defenders are expected to have higher capital intensity than prospectors.

In line with prior studies (e.g., Bentley et al., 2013; Higgins et al., 2015; Lim et al., 2018; Teirlinck, 2020), we compute all six variables using a rolling average of the respective yearly ratios over the prior five years. We rank each of the six variables by forming quintiles within each two-digit SIC industry-year. Within each industry-year, we assign a score of 5 to observations in the top quintile, a score of 4 to the second-highest quintile, and so on, and those in the lowest quintile are given a score of 1. Then, for each firm-year, we sum the scores across the six variables to generate the composite measure of business strategy. The *STRATEGY* scores range from 6 to 30. Higher *STRATEGY* scores suggest that a firm is following a prospector strategy while lower *STRATEGY* scores represent a firm following a defender strategy. Consistent with previous studies (e.g., Bentley et al., 2013; Higgins et al., 2015; Ittner et al., 1997; Lim et al., 2018; Teirlinck, 2020), we identify

defenders as those firms having the lowest value of the strategy measure (*STRATEGY* scores: 6-12) and prospectors as those firms having the highest value of the strategy measure (*STRATEGY* scores: 24-30). Firms not at either endpoint are categorized as analyzers (*STRATEGY* scores: 13-23).

3.2 Measure of trade credit provision

We use three measures of trade credit provision to examine empirically the influence of business strategy on trade credit policies. Following prior studies (Chod et al., 2019; Cuñat, 2007; Garcia-Appendini & Montoriol-Garriga, 2013; Giannetti et al., 2011; Love et al., 2007; Petersen & Rajan, 1997; Shenoy & Williams, 2017), our first measure of trade credit (*TCREDIT1*) is calculated as the ratio of accounts receivable to total sales. To remove the effects of potential outliers and transform the distribution of the variable in a way that satisfies the econometric assumptions for OLS regressions (Wooldridge, 2015), we also use a second measure of trade credit, (*TCREDIT2*), calculated as the natural logarithm of one plus the ratio of accounts receivable to total sales (Abdulla et al., 2020). Our third measure of trade credit (*TCREDIT3*), the number of days sales outstanding, is calculated as accounts receivable scaled by the ratio of sales to 365 (e.g., Abdulla et al., 2020; Garcia-Appendini and Montoriol-Garriga, 2013; Love et al., 2007). In the robustness check section, we also use an alternative measure of trade credit (*TCREDIT4*), defined as the ratio of accounts receivable to total assets (e.g., Hill et al., 2012; Molina and Preve, 2009) and we find our results are similar.

3.3 Empirical models

Our primary analysis of the impact of business strategy on trade credit is based on the baseline specification as follows:

$$\begin{aligned}
 TCREDIT_{it} = & \beta_0 + \beta_1 STRATEGY_{it} + \beta_2 FIRMAGE_{it-1} + \beta_3 TANGIBILITY_{it-1} + \\
 & \beta_4 FAMATURITY_{it-1} + \beta_5 QUICK_{it-1} + \beta_6 SALEGROWTH_{it-1} + \beta_7 ROA_{it-1} + \\
 & \beta_8 LEVERAGE_{it-1} + \beta_9 SIZE_{it-1} + \beta_{10} MTB_{it-1} + \beta_{11} TURNOVER_{it-1} + \\
 & \beta_{12} INVENTORY_{it-1} + \beta_{13} PAYABLE_{it-1} + \beta_{14} CASH_{it-1} + \beta_{15} CAPEX_{it-1} + \\
 & \beta_{16} CFVOL_{it-1} + INDUSTRY_BY_YEAR \text{ FIXED EFFECTS} + \varepsilon_{it} \quad (1)
 \end{aligned}$$

where i identifies the firm and t is the year. The dependent variable, $TCREDIT$, is one of the three trade credit measures ($TCREDIT1$, $TCREDIT2$, and $TCREDIT3$). The value of interest, $STRATEGY$, is a discrete score with values ranging from 6 to 30 as discussed earlier.⁵ We employ a list of control variables drawn from the trade credit literature to control for their potential influence on trade credit, including firm age ($FIRMAGE$), fixed assets ($TANGIBILITY$), fixed asset maturity ($FAMATURITY$), liquidity ($QUICK$), sales growth ($SALEGROWTH$), profitability (ROA), leverage ($LEVERAGE$), firm size ($SIZE$), market-to-book ratio (MTB), turnover ($TURNOVER$), inventory ($INVENTORY$), accounts payable ($PAYABLE$), cash holding ($CASH$), capital expenditure ($CAPEX$), and cash flow volatility ($CFVOL$) (e.g., Abdulla et al., 2020; Burkart and Ellingsen, 2004; Choi and Kim, 2005; Garcia-Appendini and Montoriol-Garriga, 2013; Giannetti et al., 2011; Petersen and Rajan, 1997; Shang, 2020; Shenoy and Williams, 2017). For instance, we include firm age and size to control for the creditworthiness and reputation of a firm, which may affect the firm's ability to access alternative sources of finance (Petersen & Rajan, 1997). Also, we consider accounts payable because prior studies show that firms receiving more (less) trade credit are also likely to use more (less) trade credit and vice versa (Burkart & Ellingsen, 2004; Shang, 2020; Shenoy & Williams, 2017). Apart from a wide range of control variables, we also include industry-by-year fixed effects to control for unobserved heterogeneity. All regressions are estimated with heteroscedasticity robust standard errors that are clustered by firm. Detailed variable definitions are included in Appendix 1.

3.4 Sample and descriptive statistics

3.4.1 Sample

For the purpose of our study, we collect our data from COMPUSTAT, which is the most comprehensive financial database covering all publicly listed firms in the US⁶. Our sample selection

⁵ Following prior empirical studies on business strategy (Bentley-Goode et al., 2019; Bentley et al., 2013; Y. Chen et al., 2017; Higgins et al., 2015; Ittner et al., 1997; Lim et al., 2018; Yuan et al., 2020), we use the contemporaneous values of business strategy because Bentley et al. (2013) and Higgins et al. (2015) suggest that firms' strategies are consistent over time. In untabulated analyses, we further check whether there are any firms switching between prospectors and defenders and we find that there is no such switch over our sample period, which is consistent with the results of Bentley et al. (2013) and Higgins et al. (2015). In untabulated results, we also use lagged business strategy as our variable of interest, and our results are similar.

⁶ Please visit the link <https://wrds-www.wharton.upenn.edu/pages/get-data/compuSTAT-capital-iq-standard-poors/> for detailed description and introduction of the database provided by Wharton Research Data Services.

begins with firm-year data from COMPUSTAT between 1950 and 2019. We remove 103,565 firm-year observations in financial services (primary two-digit SIC codes between 60-69). To compute the business strategy composite measure, we remove firms without five years of prior data and firms with missing values for all six *STRATEGY* component variables, which ultimately leaves us with 213,404 observations. Following that, we further exclude observations with insufficient data to construct trade credit measures and all the control variables in our baseline regression. We also require an extra one year to generate lagged control variables. Our final sample consists of an unbalanced panel of 134,094 firm-year observations from more than 12,000 U.S. firms from 1962 to 2019.⁷

3.4.2 Descriptive statistics and univariate results

In panel A of Table 1, we present descriptive statistics for the variables in our baseline regression. The mean (median) of the accounts receivable ratio (*TCREDIT1*) and the natural logarithm of the ratio (*TCREDIT2*) is 16.4% (15.1%) and 14.8% (14.1%), respectively. The mean (median) of the receivable days is 59.880 (55.112). The descriptive statistics of our trade credit variables are comparable to the statistics reported in previous studies that have a similar sample size (e.g., Abdulla et al., 2020; D’Mello and Toscano, 2020; Shang, 2020). For our variable of interest, the mean (median) of *STRATEGY*, is 17.431 (17) and the standard deviation is 3.728. This is similar to Higgins et al. (2015) with the mean (median) of 17.954 (18) and the standard deviation of 3.707 and Bentley et al. (2013) with the mean (median) of 18.040 (18) and the standard deviation of 3.630 for *STRATEGY*. In line with prior studies on business strategy (Bentley et al., 2013; Y. Chen et al., 2017; Yuan et al., 2020), we did not find any firm switching business strategy (between prospectors and defenders) across our sample period. This suggests that our measure is valid and consistent with the notion that a firm’s business strategy remains very stable and consistent over time as it is typically determined at an early stage of the firm. In our sample, 134,094 total firm-year observations represent 6,723 prospector-years and 12,949 defender-years, with the remaining observations representing the analyzer category.

In panel B of Table 1, we contrast the descriptive statistics of firms with different business strategies. Consistent with Higgins et al. (2015), we focus primarily on the comparisons between

⁷ The number of firm-year observations in our sample is small at the beginning of our sample period due to data availability and starts to rise steadily from 1970.

the defenders and prospectors, while we include analyzers in our analyses as a benchmark. The comparison indicates that prospectors have a higher mean (median) of the accounts receivable ratio (*TCREDIT1*) of 0.173 (0.166) than defenders of 0.151 (0.135). These differences in the mean and median are statistically significant at the 1% level. Analyzers generally fall in the middle between the two groups with a mean of 0.165 and a median of 0.152 for *TCREDIT1*. We find similar results for *TCREDIT2* and *TCREDIT3*. Overall, our univariate results suggest that prospectors tend to offer or extend more trade credit than defenders.⁸

[Insert Table 1 about here]

4. Results

4.1 Main results

Table 2 presents the main regression results on the relationship between business strategy and trade credit provisions. We report results from estimating Model (1) using three different measures of trade credit (*TCREDIT1*, *TCREDIT2* and *TCREDIT3*) as dependent variables. In Columns 1-3, we use *STRATEGY*, a discrete measure of a firm's business strategy, as the independent variable in the multivariate regressions. In support of our Hypothesis 1a, the coefficient of *STRATEGY*, our variable of interest, is consistently positive and significant at 1% level. The results suggest that firms with higher degrees of innovation-orientation offer more trade credit to customers. Therefore, trade credit is used by prospectors as a marketing tool to stimulate demand and serve as an implicit guarantee of product quality given their differentiated products that do not have readily available substitutes and are less known by customers (Higgins et al., 2015; Ittner et al., 1997; Levy, 1985).

In Columns 4-6, to make sure our baseline results are not driven by the choice of the discrete measure of business strategy, we follow prior literature (Bentley et al., 2013; Higgins et al., 2015; Lim et al., 2018) and repeat the analysis by replacing *STRATEGY* with two indicator variables, *PROSPECTOR* and *DEFENDER*. Similarly, we find that *PROSPECTOR* is positively significant at 1% level using all three trade credit proxies, suggesting that prospectors, on average, offer significantly more trade credit to their clients, relative to other firms (including analyzers and defenders). In contrast, the coefficient of *DEFENDER* is constantly negative and statistically

⁸ The correlation matrix is presented in Table A1 of the Supplementary Appendices.

significant at the 1% level, indicating that defenders, who follow an efficiency-oriented strategy, provide significantly less trade credit to customers.

Finally, to directly compare the difference in trade credit provisions between prospectors and defenders, we restrict our sample to only prospectors and defenders by removing the analyzers from the full sample⁹ following Higgins et al. (2015). As is presented in Columns 7-9, the variable of interest, *PROSPECTOR*, remains positive and statistically significant at 1% level across all three specifications. Notably, the coefficients are consistently larger than those in the full sample (Columns 4-6), implying that there is a significant difference in trade credit provisions between prospectors and defenders, and that prospectors have more generous trade credit policies than defenders.

Overall, in line with our main hypothesis H1a, Table 2 presents robust evidence consistent with the argument that prospectors (i.e., firms pursuing an innovation-oriented strategy) use trade credit as a strategic tool to attract more customers and maintain sustainable supplier-customer relationships, relative to defenders (i.e., firms pursuing a cost-minimization strategy). One of the potential interpretations of this finding is that innovation-oriented firms are likely to offer more trade credit when entering a new product or geographic market. Hence, given the prospectors' products are relatively new to the market, prospectors should consider using generous trade credit as an implicit guarantee of product quality and a good marketing tool to stimulate customer demand.

[Insert Table 2 about here]

4.2 Exogenous shock to talent supply: Inevitable Disclosure Doctrine (IDD)

Following Klasa et al. (2018), we construct an indicator variable *IDD* equal to one if the firm is based in a state that has already adopted IDD. We then interact the *IDD* with our main business strategy variables (*STRATEGY*, *PROSPECTOR* and *DEFENDER*) to test how firms following different business strategies adjust their trade credit policies in reaction to the passage of IDD legislation. Effectively, this empirical design allows us to conduct our test using a triple-differences

⁹ After removing the Analyzers (N=114,422) from the full sample, the new 'prospector and defender only' sample contains 19,672 observations. Given this sample contains only prospectors and defenders, *PROSPECTOR* becomes the only variable of interest, where defenders are effectively those observations with the variable *PROSPECTOR* equal to zero. Hence, variable *DEFENDER* would be redundant in the 'prospector and defender only' sample.

(DiDiD) framework¹⁰. In this analysis, we cluster standard errors at the state level, since our treatment dummy *IDD* is a state-level variable.¹¹

Table 3 presents the results. In Columns 1-3, we first run the model using the discrete measure of business strategy, *STRATEGY*. While *STRATEGY* remains positively significant, which is consistent with our main result, we find that the interaction term *STRATEGY*IDD* is negatively significant, suggesting that the positive effect of innovation orientation and trade credit is weakened amongst firms based in IDD states. More importantly, to enable a clear contrast between prospectors and defenders in terms of their reaction to IDD adoptions and for ease of interpretation, we interact *IDD* with *PROSPECTOR* and *DEFENDER*, respectively and re-estimate the model. The results are reported in Columns 4-6. While prospectors, on average, offer significantly more trade credit to their customers, in line with our prediction, *PROSPECTOR*IDD* is consistently negative and statistically significant at 1% level, suggesting that prospectors significantly curtail their trade credit provision in response to the exogenous shocks to talent supply at state level following IDD legislation, which supports our Hypothesis 2a. In contrast, consistent with our Hypothesis 2b, the insignificant result for *DEFENDER*IDD* shows that defenders do not adjust their trade credit policies following IDD adoption, given that firms pursuing a cost-minimization strategy (defenders) are unlikely to be affected by the reduced supply of high-skilled employees.

Overall, by exploiting exogenous shocks that severely undermine the implementation of prospectors' innovative business strategy, we document causal evidence that prospectors indeed reduce their trade credit in reaction to IDD laws, while no adjustments in trade credit policies are made by defenders, who are less reliant on high-skilled human capital. Hence, both Hypotheses 2a and 2b are empirically supported by our results. Taken together, the results in this section not only demonstrate distinct reactions to IDD adoptions between prospectors and defenders in terms of trade credit policies, but also provide additional support for our main finding regarding the causal link between business strategy and trade credit.

¹⁰ Since the *IDD* dummy variable itself captures the difference-in-differences (DiD) treatment effect of IDD recognitions (Callen et al., 2020; Ding et al., 2021; Gao et al., 2018; Glaeser, 2018; Klasa et al., 2018; Y. Li et al., 2018), the interaction term would estimate the triple-differences (DiDiD) treatment effect.

¹¹ This specification is consistent with the prior studies (Callen et al., 2020; Gao et al., 2018; Glaeser, 2018; Klasa et al., 2018; Y. Li et al., 2018). Given *IDD* is a state-level variable, clustering standard errors at the state level effectively accounts for within-state serial correlation. As a sensitivity test, we also repeat the analysis by clustering standard errors at the firm level and our untabulated analysis confirms that the results are robust to firm-level clustering.

[Insert Table 3 about here]

4.3 Exogenous shock to credit supply: Bank Branching Deregulations

We also examine how firms following different business strategies might adjust their trade credit policies in response to changes in credit supply. To conduct this test, we exploit the exogenous variation in credit supply at the state level due to branch deregulations across U.S. states. Specifically, there have been two sets of bank branching deregulations in the U.S. banking sector that lift the restrictions on intrastate branching (i.e., having branches within the state border) and interstate branching (i.e., having branches of out-of-state banks), respectively.¹² The relaxation of bank branch restrictions significantly increases the credit supply and bank competition, therefore making bank credit cheaper and more accessible to local businesses (Black & Strahan, 2002; Jayaratne & Strahan, 1996; Rice & Strahan, 2010; Shenoy & Williams, 2017). In our analysis, we consider both interstate and intrastate branching deregulations to make sure we fully capture and control for the effect of each type of bank deregulations (Black & Strahan, 2002). For intrastate deregulation, we follow Jayaratne and Strahan (1996) and construct an indicator *INTRA* set to one if the firm is headquartered in a state that has already implemented the intrastate branching deregulation. To capture the impact of interstate branching deregulation after the passage of the Interstate Banking and Branching Efficiency Act (IBBEA) in 1994, we use the interstate branching restrictions index (*IBBEA*) from 1994 to 2008 following Rice and Strahan (2010) and Shenoy and Williams (2017).¹³ To test how prospectors and defenders respond to the exogenous variation in bank credit supply, we further interact our key business strategy variables with *IBBEA* and *INTRA* and include the interaction terms in the regression model. Following prior literature (Rice & Strahan, 2010; Shenoy & Williams, 2017), standard errors are clustered at the state level, given both bank deregulation variables, *IBBEA* and *INTRA*, are defined at the state level.¹⁴

Table 4 presents the results. In Columns 1-3, *IBBEA* is negatively significant, suggesting that higher restrictions on interstate branching, and hence lower bank credit supply, leads to less trade

¹² Please see Jayaratne and Strahan (1996) and Rice and Strahan (2010) for background information and a more detailed description of the interstate and intrastate bank branching deregulations.

¹³ *IBBEA* index ranges from 0 to 4, with 0 being least restrictive and 4 being most restrictive. Thus, the *IBBEA* index is effectively an inverse measure of interstate banking deregulation and bank credit availability at state level. The index for 1994-2005 is accessed from Rice and Strahan (2010) and the index for 2005-2008 is from Shenoy and Williams (2017). Detailed description of the construction process of the index can be found on pages 867-871 of Rice and Strahan (2010).

¹⁴ For robustness, we repeat the analysis by clustering standard errors at the firm level and the untabulated results confirm that the results are not sensitive to firm-level clustering.

credit offered to customers, corroborating the findings of Shenoy and Williams (2017). However, the interaction term *STRATEGY*IBBEA* is positively significant at the 1% level, suggesting that for a given level of interstate bank credit availability, firms with a higher degree of innovation orientation offer more trade credit to customers. Further analysis in Columns 4-6 reveals that this finding is predominantly driven by the defenders' adjustment in trade credit provisions in accordance with the availability of bank credit. The interaction term *DEFENDER*IBBEA* is negatively significant, which implies that defenders offer less (more) trade credit when bank credit availability is lower (higher), making it costlier (cheaper) to use bank credit to finance trade credit to customers. Thus, this result offers support to our Hypothesis 3a. In contrast, *PROSPECTOR*IBBEA* is insignificant, which supports our Hypothesis 3b and suggests that prospectors are reluctant to reduce trade credit when bank credit is limited and more expensive, which in turn reflects their reliance on trade credit and insensitivity to the cost of financing.¹⁵

The different responses to bank credit supply between prospectors and defenders can be explained by two reasons. First, given that defenders focus on cost minimization and are very sensitive to costs including financing costs, defenders significantly curtail their trade credit provision in response to the lower supply of bank credit resulting from tighter interstate branching restrictions. In other words, defenders are only willing to offer more trade credit when they can access cheaper bank credit, consistent with Shenoy and Williams (2017). Second, the finding that prospectors maintain the same level of trade credit even when credit supply is lower is consistent with prospectors using trade credit as a strategic tool to attract more customers, given that their innovative products are often new to the market and would typically take more time and effort to be assessed and recognized by customers (Long et al., 1993; Ng et al., 1999). Taken together, we believe that the reactions of prospectors and defenders to the exogenous variation in credit availability are aligned with the core values behind each strategy, thus lending additional support to our main finding.

In the meantime, it should be noted that having controlled for the effect of interstate banking deregulation, intrastate banking deregulations appear to play an insignificant role in determining the trade credit policies for firms following different business strategies. These results imply that interstate deregulation has stronger and wider implications for businesses than intrastate

¹⁵ For robustness, we also repeat the analysis by adding state fixed effect to control for time-invariant state characteristics. In the untabulated results, we find our results still hold. We thank the reviewer for raising this issue.

deregulation, which is consistent with Black and Strahan (2002)¹⁶.

[Insert Table 4 about here]

4.4 Cross-sectional analyses

4.4.1 Operational pressure

In this section, we conduct a series of cross-sectional analyses to examine how the effect of business strategy on trade credit provision may vary with firms' operational pressure and financial condition.

Prior literature suggests that one of the main motives behind trade credit is to alleviate the operational pressure and mitigate volatility in demand (Emery, 1984, 1987; Ng et al., 1999; Petersen & Rajan, 1997). By extending trade credit to customers, firms, in essence, lower the prices of the products and hence are likely to attract more sales from customers, particularly those with a weaker financial background who would not otherwise afford the goods (Ng et al., 1999; Petersen & Rajan, 1997). Moreover, whilst generating more sales, firms also reduce the cost of holding excessive inventories (Bougheas et al., 2009a; Petersen & Rajan, 1997). Therefore, when holding high levels of inventories and facing a decline in demand, firms have greater incentives to offer generous trade credit terms proactively as a tool to stimulate demand and shift inventories. This is particularly relevant for innovation-oriented firms whose products would typically require a longer time to be evaluated and recognized by customers in the market (Long et al., 1993; Ng et al., 1999). Following this logic, we expect that the effect of business strategy on trade credit provision should be stronger for firms holding excessive levels of inventories.

The first two columns in Table 5 present the results for the two subsamples based on the inventory level. While our key variable *STRATEGY* is significant in the high-inventory group (Column 1) and low-inventory group (Column 2), we find that the coefficient of *STRATEGY* in the high-inventory firms is both larger (0.0017) and more statistically significant (t-statistics=20.01) than that in the low-inventory firms. The two coefficients of *STRATEGY* between the two columns are statistically different at 5%.

¹⁶ The vast majority of intrastate branching deregulations had already been introduced before the relaxation of interstate branching restrictions was started in 1994. In Table IV (page 2822) and Table V (2824) of Black and Strahan (2002), the coefficient of interstate banking deregulation (Post-interstate banking indicator) is consistently larger than that for intrastate branching deregulation (Post-branching indicator).

4.4.2 Financial condition

We then test how the financial well-being of firms may affect the relation. Prior literature establishes that firms' decisions on trade credit provision are largely influenced by their financial condition and access to finance (Abdulla et al., 2020; Ng et al., 1999; Petersen & Rajan, 1997; Shenoy & Williams, 2017). Since trade credit consumes a large sum of cash flows and effectively shifts the financing costs to the suppliers, financially healthier firms and firms with wider access to external capital are better positioned to provide trade credit than firms facing financial constraints or obstacles in securing finance from financial markets (Abdulla et al., 2020; Shenoy & Williams, 2017). Thus, we predict the positive relation between business strategy and trade credit provision should be more pronounced for firms with good access to external finance and firms that are financially healthy. To test the heterogeneity in the relation, we partition our sample based on three measures: 1) access to external capital, 2) financial constraints and 3) financial distress.

Firstly, following previous studies (e.g., Abdulla et al., 2020; Acharya & Xu, 2017; Rajan & Zingales, 1998), we use external finance dependence to proxy for a firm's access to external capital. We define firms with above (below) median level of external finance dependence as firms with good (poor) access to external finance. As is shown in Columns 3-4, while the key variable *STRATEGY* remains positively significant in both groups, we find that the coefficient for firms with high levels of external capital supply (Column 3) is larger than that for firms with lower reliance on external capital (Column 4). We test the difference in the coefficients between the two subgroups and find that the difference is statistically significant at the 5% level.

Next, we split our sample into financially constrained firms and financially healthy firms, based on the median of the KZ index as a widely used proxy for financial constraints (e.g., Baker, Stein, & Wurgler, 2003; Cheng, Ioannou, & Serafeim, 2014; Ghaly, Dang, & Stathopoulos, 2017; Jia, Gao, & Julian, 2020; Kaplan & Zingales, 1997) and test whether financial constraint would weaken the relationship. As we can see from Column 5 and Column 6, the coefficient is greater for financially healthy firms (Column 6) than that for financially constrained firms (Column 5), indicating that the relation between business strategy and trade credit is stronger (weaker) for financially healthy (constrained) firms.

For robustness, in the last two columns, we calculate Altman's Z-score (e.g., Call, Campbell, Dhaliwal, & Moon, 2017; Call, Kedia, & Rajgopal, 2016; Graham, Lemmon, & Schallheim, 1998;

Hamm, Jung, Lee, & Yang, 2021; Horton, Serafeim, & Wu, 2017) as a proxy for financial distress, which is an extreme scenario of financial constraint. Financially distressed firms have a higher probability of insolvency and bankruptcy risk. Hence, we expect that firms under financial distress are likely to offer substantially less trade credit, compared to non-distressed firms which are able to afford more trade credit provision. Thus, we categorize firms into financially distressed and non-distressed subgroups based on whether firms' Altman's Z-score is below or above the sample median. Consistent with the results based on the financial constraint, the larger coefficient in Column 8 (0.0020) confirms that the effect of business strategy on trade credit provision is more pronounced amongst non-distressed firms. We compare the difference between the coefficients in the two subsamples and find the coefficients are significantly different at the 1% level.

In this section, our subsample analyses show that the impact of business strategy on trade credit provision is stronger for firms holding higher levels of inventories, firms with superior access to external financing and firms that are financially healthier.

[Insert Table 5 about here]

5. Additional analyses

5.1 Benefits of the use of trade credit by prospectors

So far, we have assumed that prospectors offer generous trade credit with the intention to penetrate the market and generate more revenue. In this section, we aim to verify whether the use of trade credit does help improve the performance of prospectors. Specifically, in order to tease out the effect of trade credit, we focus on the change in trade credit provision and test whether an increase in trade receivables by prospectors leads to superior firm efficiency and performance. In particular, to test our conjecture that prospectors use trade credit as a strategic tool to attract more customers and generate more sales, we follow Demerjian et al. (2012) and use total firm efficiency¹⁷ (*FIRM_EFFICIENCY*), which specifically captures a firm's efficiency in revenue generation. A higher value in *FIRM_EFFICIENCY* indicates that a firm is more efficient in increasing sales (Demerjian et al., 2012). In addition, to test the effect of trade credit on firm

¹⁷ The firm efficiency measure (*FIRM_EFFICIENCY*) developed by Demerjian et al. (2012) is particularly relevant in that the measure's focus on sales generation allows us to directly verify our conjecture. In Demerjian et al. (2012), the authors estimate total firm efficiency (*FIRM_EFFICIENCY*) based on a set of factors using the Data Envelopment Analysis (DEA) method. Please see page 1234-1235 for detailed description of the variable construction process. Data for firm-level efficiency in revenue generation (*FIRM_EFFICIENCY*) are accessed from the author's personal website at <https://peterdemerjian.weebly.com/managerialability.html>.

performance, we use a market-based performance measure Tobin's q (*TOBINSQ*) as the dependent variable, which is considered forward-looking and circumvents issues with accounting-based performance measures (Bharadwaj et al., 1999; Wernerfelt & Montgomery, 1988).

To empirically verify the benefits of trade credit for prospectors, we include an indicator variable *INCREASE* equal to one if there is a positive change in trade receivables from year t-1 to year t. More importantly, we further interact this dummy variable with the indicator variables for both prospectors (*PROSPECTOR*) and defenders (*DEFENDER*). Table 6 presents the results. In Column 1, we test whether the increase in trade credit from year t-1 to year t¹⁸ can improve prospectors' efficiency in generating more revenue in year t. While the increase in trade credit does not necessarily contribute to higher efficiency in generating sales, as indicated by the insignificant result for *INCREASE*, the key interaction term *PROSPECTOR*INCREASE* is positively significant, indicating that prospectors experiencing an increase in trade credit provision enjoy higher levels of revenue generation efficiency, relative to those prospectors who do not increase trade credit provision. In Column 2, we change the outcome variable to *TOBINSQ* and find that *PROSPECTOR*INCREASE* is positive and statistically significant at the 1% level. This result directly verifies that an increase in trade credit by prospectors leads to superior financial performance. It is worth noting that an increase in trade credit provision, however, does not bring the same benefit to defenders, as suggested by the consistently insignificant result for *DEFENDER*INCREASE* in both columns. These results also corroborate our main results revealing different trade credit policies between prospectors and defenders in Table 2.

Taken together, the findings from this additional test substantiate the motives behind prospectors' use of trade credit, thus offering direct evidence in support of our conjecture that prospectors use trade credit as a strategic instrument to enhance efficiency in generating more revenue and ultimately improve firm performance.

[Insert Table 6 about here]

5.2 Supply chain analysis

Our analyses up until this point have focused exclusively on the provision of trade credit to customers (i.e., accounts receivable). In this section, we extend our analysis along the supply chain and study whether firms are offered more trade credit by their suppliers. If prospectors indeed

¹⁸ To check robustness and further alleviate concern over reverse causality, we also repeat the analyses based on change in trade credit from t-2 to t-1 and the untabulated results are robust to this alternative specification.

offer more trade credit to their customers, as demonstrated in our main results, it would be interesting to see whether these prospectors also receive more trade credit from their own suppliers (i.e., accounts payable). In particular, Cosh et al. (2009) point out that innovation-oriented firms treat trade credit from their suppliers as an important source of external financing. Building on this argument, we predict that prospectors are also likely to receive more trade credit from their suppliers, which in return enables prospectors to afford more generous trade credit provisions, as we documented in our main results.

To conduct our supply chain analysis, we use *PAYABLE*, calculated as accounts payable scaled by the total cost of goods sold, as the dependent variable, consistent with Li et al. (2020). In addition, we also control for the level of trade credit provision (i.e., accounts receivable) in the regression model. Table 7 reports the results in a similar format to our main results in Table 2. As we can see, both *STRATEGY* (Column 1-3) and *PROSPECTOR* (Column 4-6) are consistently significant and positive across all specifications, offering strong evidence that firms pursuing an innovation-oriented business strategy also receive significantly more trade credit from their suppliers. In contrast, the negative and significant coefficients for *DEFENDER* (Column 4-6) illustrate that defenders receive less trade credit from their suppliers. Taken together, we reveal that firms following an innovation-oriented business strategy (i.e., prospectors) not only offer more trade credit to their customers but also receive more trade credit from their suppliers at the same time, shedding light on the flow of trade credit along the prospectors' supply chain.

[Insert Table 7 about here]

5.3 Robustness tests

To ensure the robustness of our main result, we conducted a series of additional tests.¹⁹ First, to address the potential endogeneity concern arising from omitted variable bias or reverse causality, we use the propensity score matching (PSM) technique to make sure that prospectors and defenders are highly comparable in terms of both firm and industry characteristics. Specifically, we match prospector firms (Treated=1) with defender firms (Treated=0) based on year and industry as well as all the firm characteristics included in our baseline model, using the one-to-one nearest-neighbor algorithm with a caliper of 0.05. We then compare the level of trade credit between the

¹⁹ Full details of the robustness tests in Section 5.3 can be found in the Supplementary Appendices.

two matched groups (prospectors vs. defenders). Our PSM analyses present robust evidence that prospectors offer more trade credit than defenders after controlling for a series of observable firm characteristics and unobservable industry heterogeneity between prospectors and defenders. Secondly, we also employ an instrumental variable (IV) approach using the 3-year and 5-year lagged business strategy as two instruments to further alleviate the endogeneity concern (Kong et al., 2020; Sheng et al., 2019). After performing two-stage least squares (2SLS) regressions, we find that *STRATEGY* continues to be positive and statistically significant at the 1% level after further addressing potential endogeneity issues using an IV approach. Third, to ensure that our key variable *STRATEGY* indeed captures business strategy rather than merely what the six individual components would have captured, we follow prior literature (Y. Chen et al., 2017; Yuan et al., 2020) and include all six components as additional control variables in our main model and find that our results remain robust to the inclusion of individual components. Finally, we also repeat our analysis using alternative measures of business strategy using principle component analysis (Abernethy et al., 2019; Bentley et al., 2013; Higgins et al., 2015; Yuan et al., 2020) and three different proxies for trade credit. Overall, we find that our results remain robust.

6. Discussion and Conclusion

In this paper, we study whether firms' trade credit policies vary across different business strategies. We find that firms pursuing an innovation-oriented business strategy (i.e., prospectors) offer more trade credit to their customers, relative to firms pursuing an efficiency-oriented business strategy. This is consistent with prospectors utilizing trade credit as a strategic tool to build sustainable relationships with customers and generate more revenue. By exploiting exogenous shocks to talent mobility and supply due to IDD laws, we find that prospectors significantly curtail their trade credit provision in reaction to the exogenous reduction in talent supply, while no such adjustments in trade credit policies are made by defenders. In another test, we find that defenders significantly reduce their trade credit in response to the exogenous reduction in bank credit supply, whereas prospectors maintain their levels of trade credit provision. We then test how prospectors can benefit from such generous trade credit policies and reveal that prospectors that increase their trade credit are more efficient in generating revenues and enjoy superior financial performance. We also study the use of trade credit along the supply chain and find that prospectors in turn receive more trade credit from their suppliers. Finally, we conduct a series of additional tests including

PSM and IV approaches to address potential endogeneity issues and ensure the robustness of our results.

Our study makes contributions on several fronts. While there has been a proliferation of studies on the motives and determinants of trade credit, no study has investigated empirically how business strategy, as a defining firm attribute determined at an early stage, may influence a firm's trade credit policies. Our paper highlights that business strategy is an important determinant of trade credit provision. Since business strategy is consistent over a long period of a company's life cycle, our findings, therefore, suggest that it can have long-term implications for firms' trade credit decisions. Therefore, our paper enhances our understanding of the determinants of trade credit. Moreover, previous research has shown that business strategy can play an important role in shaping firms' decision-making regarding executive compensation (Core, 2020; Ittner et al., 1997), financial reporting irregularities and audit effort (Bentley et al., 2013), tax aggressiveness (Higgins et al., 2015), annual report readability (Lim et al., 2018) and CSR performance (Yuan et al., 2020). We contribute to this line of research by extending the implications of business strategy to firms' trade credit policies. Our paper, therefore, suggests that business strategy can potentially influence how firms interact with their customers through supplier financing.

Our study has several important implications for both managers and policymakers. Our findings reveal that managers at innovative firms may benefit from more generous trade credit provision in terms of maintaining a sustainable supplier-customer relationship and improving firm performance, against the backdrop of an increasingly competitive business environment. Moreover, our study has also important implications for managers in different enterprises following different business strategies. We show that prospectors, which are highly innovative businesses, are more reliant on trade credit. The lack of sufficient trade credit provision would pose a financial barrier to potential buyers who would benefit tremendously from the innovative products designed by prospectors. Hence, this may hamper the growth and even potentially jeopardize the long-term prosperity of innovation-oriented businesses. For instance, Tesla, as a prospector, can use trade credit as a strategic tool to attract more customers and therefore facilitate the rapid roll-out of more environmental-friendly electric vehicles, which will significantly reduce carbon emissions and ultimately help tackle climate change. Thus, managers of innovation-oriented businesses are advised to preserve sufficient liquidity to fund credit provision to their customers. Further, by

examining how the changes in external circumstances such as talent supply and bank credit supply may affect prospectors and defenders differently, our study can also serve as a reference and provide insightful implications to managers of both innovation-oriented and efficiency-oriented firms. Specifically, when facing an external circumstance where talent supply is limited, managers of innovation-oriented firms should consider strategically adjusting the trade credit policies in a timely manner. Similarly, when facing an external circumstance where bank credit availability is limited in the economy, managers of efficiency-oriented firms are encouraged to maintain a healthy level of trade credit to their customers, thus stimulating customers' demand for the transacted products and avoiding losing the competitiveness of their businesses. For example, efficiency-oriented firms, such as New Jersey Steel Corp, are advised to take advantage of favorable external environment and market conditions to attract more customers through the use of generous trade credit.

At the same time, our study also has timely policy implications. Given the crucial role of innovative businesses in the economy (He & Tian, 2013; Luong et al., 2017; Zingales, 2000) and the financial pressure faced by innovation-oriented firms, policymakers are advised to provide more financial support to help alleviate the financial pressure and enhance the liquidity of innovative firms who need to not only invest in expensive innovative activities but also offer generous trade credit terms to their customers. Meanwhile, given our finding that efficiency-oriented firms also offer more trade credit when bank credit is cheaper and more accessible, regulators and policymakers are advised to lower the financial barrier for efficiency-oriented firms to access more and cheaper credit, making it more affordable for them to offer trade credit to attract more customers. In addition, our study also highlights the benefits of trade credit as an alternative source of financing, which not only facilitates financial transactions between suppliers and customers but also fosters a resilient relationship in the supply chain particularly during financially challenging times such as, financial crisis, the current COVID-19 pandemic, and the global supply chain crisis. Overall, our study offers new insights into the determinants of trade credit as a popular source of corporate financing along supply chains.

Finally, our study also suggests several avenues for future research. First, our empirical evidence is based on the use of U.S. data, which might limit the generalizability of our findings to other contexts. Therefore, future research can examine the effect of business strategy on the financial

interaction between customers and suppliers in other countries where institutional settings, cultures and religions, and regulatory regimes tend to vary greatly. For example, in emerging markets where financial infrastructure is relatively less developed, it would be important to understand how firms with different business strategies in those countries make use of interfirm financing as an important source of funding. Second, our study focuses on trade credit as an important source of corporate financing, future studies can also look at how business strategy may affect firms' ability to attract funding from formal financial institutions such as banks, and the costs associated with their financing activities.

References

- Abdulla, Y., Dang, V. A., & Khurshed, A. (2020). Suppliers' listing status and trade credit provision. *Journal of Corporate Finance*, 60(November 2019), 101535.
- Abernethy, M. A., Kuang, Y. F., & Qin, B. (2019). The Relation between strategy, CEO selection, and firm performance. *Contemporary Accounting Research*, 36(3), 1575–1606.
- Acharya, V. V., Baghai, R. P., & Subramanian, K. V. (2014). Wrongful discharge laws and innovation. *Review of Financial Studies*, 27(1), 301–346.
- Acharya, V., & Xu, Z. (2017). Financial dependence and innovation: The case of public versus private firms. *Journal of Financial Economics*, 124(2), 223–243
- Ali, A., Li, N., & Zhang, W. (2019). Restrictions on managers' outside employment opportunities and asymmetric disclosure of bad versus good news. *The Accounting Review*, 94(5), 1–25.
- Almeida, P., & Kogut, B. (1999). Localization of knowledge and the mobility of engineers in regional networks. *Management Science*, 45(7), 905–917.
- Aobdia, D. (2018). Employee mobility, noncompete agreements, product-market competition, and company disclosure. *Review of Accounting Studies*, 23(1), 296–346.
- Baker, M., Stein, J. C., & Wurgler, J. (2003). When does the market matter? Stock prices and the investment of equity-dependent firms. *The Quarterly Journal of Economics*, 118(3), 969–1005.
- Barrot, J. N. (2016). Trade credit and industry dynamics: Evidence from trucking firms. *Journal of Finance*, 71(5), 1975–2016.
- Bastos, R., & Pindado, J. (2013). Trade credit during a financial crisis: A panel data analysis. *Journal of Business Research*, 66(5), 614–620.
- Bentley-Goode, K. A., Omer, T. C., & Twedt, B. J. (2019). Does business strategy impact a firm's information environment? *Journal of Accounting, Auditing and Finance*, 34(4), 563–587.
- Bentley, K. A., Omer, T. C., & Sharp, N. Y. (2013). Business strategy, financial reporting irregularities, and audit effort. *Contemporary Accounting Research*, 30(2), 780–817.
- Bharadwaj, A. S., Bharadwaj, S. G., & Konsynski, B. R. (1999). Information technology effects on firm performance as measured by Tobin's q. *Management Science*, 45(7), 1008–1024.
- Biais, B., & Gollier, C. (1997). Trade credit and credit rationing. *The Review of Financial Studies*, 10(4), 903–937.
- Black, S. E., & Strahan, P. E. (2002). Entrepreneurship and bank credit availability. *Journal of Finance*, 57(6), 2807–2833.
- Bougheas, S., Mateut, S., & Mizen, P. (2009). Corporate trade credit and inventories: New evidence of a trade-off from accounts payable and receivable. *Journal of Banking & Finance*, 33(2), 300–307.
- Box, T., Davis, R., Hill, M., & Lawrey, C. (2018). Operating performance and aggressive trade credit policies. *Journal of Banking and Finance*, 89, 192–208.
- Breschi, S., & Lissoni, F. (2001). Knowledge spillovers and local innovation systems: a critical survey. *Industrial and Corporate Change*, 10(4), 975–1005.

- Burkart, M., & Ellingsen, T. (2004). In-kind finance: A theory of trade credit. *American Economic Review*, 94(3), 569–590.
- Call, A. C., Campbell, J. L., Dhaliwal, D. S., & Moon, J. R. (2017). Employee quality and financial reporting outcomes. *Journal of Accounting and Economics*, 64(1), 123–149.
- Call, A. C., Kedia, S., & Rajgopal, S. (2016). Rank and file employees and the discovery of misreporting: The role of stock options. *Journal of Accounting and Economics*, 62(2), 277–300.
- Callen, J. L., Fang, X., & Zhang, W. (2020). Protection of proprietary information and financial reporting opacity: Evidence from a natural experiment. *Journal of Corporate Finance*, 64(May), 101641.
- Castellani, D., & Afonso, J. S. (2021). Geographic diversification and credit supply in times of trouble: Evidence from microlending. *Journal of Business Research*, 132(October), 848–859.
- Chang, X., Fu, K., Low, A., & Zhang, W. (2015). Non-executive employee stock options and corporate innovation. *Journal of Financial Economics*, 115(1), 168–188.
- Chemmanur, T. J., He, J., He, S., & Nandy, D. (2018). Product market characteristics and the choice between IPOs and acquisitions. *Journal of Financial and Quantitative Analysis*, 53(2), 1–41.
- Chen, C., Chen, Y., Hsu, P. H., & Podolski, E. J. (2016). Be nice to your innovators: Employee treatment and corporate innovation performance. *Journal of Corporate Finance*, 39, 78–98.
- Chen, C. J., Guo, R. S., Hsiao, Y. C., & Chen, K. L. (2018). How business strategy in non-financial firms moderates the curvilinear effects of corporate social responsibility and irresponsibility on corporate financial performance. *Journal of Business Research*, 92(July), 154–167.
- Chen, J., Leung, W. S., & Evans, K. P. (2016). Are employee-friendly workplaces conducive to innovation? *Journal of Corporate Finance*, 40, 61–79.
- Chen, Y., Eshleman, J. D., & Soileau, J. S. (2017). Business strategy and auditor reporting. *AUDITING: A Journal of Practice & Theory*, 36(2), 63–86.
- Cheng, B., Ioannou, I., & Serafeim, G. (2014). Corporate social responsibility and access to finance. *Strategic Management Journal*, 35, 1–23.
- Chod, J., Lyandres, E., & Yang, S. A. (2019). Trade credit and supplier competition. *Journal of Financial Economics*, 131(2), 484–505.
- Choi, W. G., & Kim, Y. (2005). Trade credit and the effect of macro-financial shocks: Evidence from U.S. panel data. *Journal of Financial and Quantitative Analysis*, 40(4), 897–925.
- Contigiani, A., Hsu, D. H., & Barankay, I. (2018). Trade secrets and innovation: Evidence from the “inevitable disclosure” doctrine. *Strategic Management Journal*, 39(11), 2921–2942.
- Cosci, S., Guida, R., & Melicani, V. (2020). Does trade credit really help relieving financial constraints? *European Financial Management*, 26(1), 198–215.
- Cosh, A., Cumming, D., & Hughes, A. (2009). Outside entrepreneurial capital. *Economic Journal*, 119(540), 1494–1533.
- Core, J. (2020). The real effects of financial reporting on pay and incentives. *Accounting and Business Research*, 50(5), 448–469.
- Cuñat, V. (2007). Trade credit: Suppliers as debt collectors and insurance providers. *Review of*

- Financial Studies*, 20(2), 491–527.
- D’Mello, R., & Toscano, F. (2020). Economic policy uncertainty and short-term financing: The case of trade credit. *Journal of Corporate Finance*, 101686.
- Daripa, A., & Nilsen, J. (2011). Ensuring sales: A theory of inter-firm credit. *American Economic Journal: Microeconomics*, 3(1), 245–279.
- Dass, N., Kale, J. R., & Nanda, V. (2015). Trade credit, relationship-specific investment, and product market power. *Review of Finance*, 19(5), 1867–1923.
- Demerjian, P., Lev, B., & McVay, S. (2012). Quantifying managerial ability: A new measure and validity tests. *Management Science*, 58(7), 1229–1248.
- Ding, R., Sainani, S., & (John) Zhang, Z. (2021). Protection of trade secrets and corporate tax avoidance: Evidence from the inevitable disclosure doctrine. *Journal of Business Research*, 132(June 2020), 221–232.
- Emery, G. W. (1984). A Pure Financial Explanation for Trade Credit. *The Journal of Financial and Quantitative Analysis*, 19(3), 271.
- Emery, G. W. (1987). An optimal financial response to variable demand. *The Journal of Financial and Quantitative Analysis*, 22(2), 209–225.
- Fabbri, D., & Klapper, L. F. (2016). Bargaining power and trade credit. *Journal of Corporate Finance*, 41, 66–80.
- Fauver, L., McDonald, Mi. B., & Taboada, A. G. (2018). Does it pay to treat employees well? International evidence on the value of employee-friendly culture. *Journal of Corporate Finance*, 50(2017), 84–108.
- Ferris, J. S. (1981). A Transactions theory of trade credit use. *The Quarterly Journal of Economics*, 96(2), 243–270.
- Gao, H., Zhang, H., & Zhang, J. (2018). Employee turnover likelihood and earnings management: Evidence from the inevitable disclosure doctrine. *Review of Accounting Studies*, 23(4), 1424–1470.
- Garcia-Appendini, E., & Montoriol-Garriga, J. (2013). Firms as liquidity providers: Evidence from the 2007–2008 financial crisis. *Journal of Financial Economics*, 109(1), 272–291.
- Ghaly, M., Dang, V. A., & Stathopoulos, K. (2017). Cash Holdings and Labor Heterogeneity: The Role of Skilled Labor. *The Review of Financial Studies*, 30(10), 3636–3668.
- Giannetti, M., Burkart, M., & Ellingsen, T. (2011). What you sell is what you lend? Explaining trade credit contracts. *Review of Financial Studies*, 24(4), 1261–1298.
- Glaeser, S. (2018). The Effects of proprietary information on corporate disclosure and transparency: Evidence from Trade Secrets. *Journal of Accounting and Economics*, (2010).
- Graham, J. R., Lemmon, M. L., & Schallheim, J. S. (1998). Debt, Leases, Taxes, and the Endogeneity of Corporate Tax Status. *The Journal of Finance*, 53(1), 131–162.
- Habib, A., & Hasan, M. M. (2017). Business strategy, overvalued equities, and stock price crash risk. *Research in International Business and Finance*, 39, 389–405.
- Hambrick, D. C. (1983). Some tests of the effectiveness and functional attributes of Miles and

- Snow's strategic types. *Academy of Management Journal*, 26(1), 5–26.
- Hamm, S. J. W., Jung, B. C., Lee, W., & Yang, D. G. (2021). Organized labor and inventory stockpiling. *The Accounting Review*, 1–44.
- He, J. (Jack), Tian, X., (2013). The dark side of analyst coverage: The case of innovation. *Journal of Financial Economics*. 109(3), 856–878.
- He, Z. (2018). Money held for moving stars: Talent competition and corporate cash holdings. *Journal of Corporate Finance*, 51, 210–234.
- Higgins, D., Omer, T. C., & Phillips, J. D. (2015). The Influence of a firm's business strategy on its tax aggressiveness. *Contemporary Accounting Research*, 32(2), 674–702.
- Hill, M. D., Kelly, G. W., & Lockhart, G. B. (2012). Shareholder returns from supplying trade credit. *Financial Management*, 41(1), 255–280.
- Horton, J., Serafeim, G., & Wu, S. (2017). Career concerns of banking analysts. *Journal of Accounting and Economics*, 63(2–3), 231–252.
- Ittner, C. D., Larcker, D. F., & Rajan, M. V. (1997). The choice of performance measures in annual bonus contracts. *The Accounting Review*, 72(2), 231–255.
- Jayaratne, J., & Strahan, P. E. (1996). The finance-growth nexus: Evidence from bank branch deregulation. *The Quarterly Journal of Economics*, 111(3), 639–670.
- Jia, Y., Gao, X., & Julian, S. (2020). Do firms use corporate social responsibility to insure against stock price risk? Evidence from a natural experiment. *Strategic Management Journal*, 41(2), 290–307.
- Kaplan, S. N., & Zingales, L. (1997). Do Investment-Cash Flow Sensitivities Provide Useful Measures of Financing Constraints? *The Quarterly Journal of Economics*, 112(1), 169–215.
- Klapper, L., Laeven, L., & Rajan, R. (2012). Trade credit contracts. *Review of Financial Studies*, 25(3), 838–867.
- Klasa, S., Ortiz-Molina, H., Serfling, M., & Srinivasan, S. (2018). Protection of trade secrets and capital structure decisions. *Journal of Financial Economics*, 128(2), 266–286.
- Kong, D., Yang, X., Liu, C., & Yang, W. (2020). Business strategy and firm efforts on environmental protection: Evidence from China. *Business Strategy and the Environment*, 29(2), 445–464.
- Lee, Y. W., & Stowe, J. D. (1993). Product risk, asymmetric information, and trade credit. *The Journal of Financial and Quantitative Analysis*, 28(2), 285–300.
- Levine, R., Lin, C., & Xie, W. (2018). Corporate resilience to banking crises: The roles of trust and trade credit. *Journal of Financial and Quantitative Analysis*, 53(4), 1441–1477.
- Levy, D. T. (1985). The transactions cost approach to vertical integration: An empirical examination. *The Review of Economics and Statistics*, 67(3), 438–445.
- Li, X., Ng, J., & Saffar, W. (2020). Financial reporting and trade credit: Evidence from mandatory IFRS adoption. *Contemporary Accounting Research*.
- Li, Y., Lin, Y., & Zhang, L. (2018). Trade Secrets law and corporate disclosure: Causal evidence on the proprietary cost hypothesis. *Journal of Accounting Research*, 56(1), 265–308.

- Lim, E. K. Y., Chalmers, K., & Hanlon, D. (2018). The influence of business strategy on annual report readability. *Journal of Accounting and Public Policy*, 37(1), 65–81.
- Lin, Y. E., Li, Y. W., Cheng, T. Y., & Lam, K. (2021). Corporate social responsibility and investment efficiency: Does business strategy matter? *International Review of Financial Analysis*, 73(86), 101585.
- Long, M. S., Malitz, I. B., & Ravid, S. A. (1993). Trade credit, quality guarantees, and product marketability. *Financial Management*, 22(4), 117–127.
- Love, I., Preve, L. A., & Sarria-Allende, V. (2007). Trade credit and bank credit: Evidence from recent financial crises. *Journal of Financial Economics*, 83(2), 453–469.
- Luong, H., Moshirian, F., Nguyen, L., Tian, X., Zhang, B., (2017). How Do Foreign Institutional Investors Enhance Firm Innovation? *Journal of Financial and Quantitative Analysis*. 52(4), 1449–1490.
- Mao, C. X., & Weathers, J. (2019). Employee treatment and firm innovation. *Journal of Business Finance & Accounting*, 46(7–8), 977–1002.
- March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, 2(1), 71–87.
- Martinez-Simarro, D., Devece, C., & Llopis-Albert, C. (2015). How information systems strategy moderates the relationship between business strategy and performance. *Journal of Business Research*, 68(7), 1592–1594.
- Marx, M., Singh, J., & Fleming, L. (2015). Regional disadvantage? Employee non-compete agreements and brain drain. *Research Policy*, 44(2), 394–404.
- Marx, M., Strumsky, D., & Fleming, L. (2009). Mobility, skills, and the Michigan non-compete experiment. *Management Science*, 55(6), 875–889.
- Mateut, S., Mizen, P., & Ziane, Y. (2015). Inventory composition and trade credit. *International Review of Financial Analysis*, 42, 434–446.
- McDaniel, S. W., & Kolari, J. W. (1987). Marketing strategy implications of the Miles and Snow strategic typology. *Journal of Marketing*, 51(4), 19–30.
- Meltzer, A. H. (1960). Mercantile credit, monetary policy, and size of firms. *The Review of Economics and Statistics*, 42(4), 429–437.
- Miles, R. E., & Snow, C. C. (1978). *Organizational strategy, structure, and process*. New York: McGraw-Hill.
- Miles, R. E., & Snow, C. C. (2003). *Organizational strategy, structure, and process*. Stanford: CA:Stanford University Press.
- Milgrom, P., & Roberts, J. (1995). Complementarities and fit strategy, structure, and organizational change in manufacturing. *Journal of Accounting and Economics*, 19(2), 179–208.
- Molina, C. A., & Preve, L. A. (2009). Trade receivables policy of distressed firms and its effect on the costs of financial distress. *Financial Management*, 38(3), 663–686.
- Molina, C. A., & Preve, L. A. (2012). An empirical analysis of the effect of financial distress on trade credit. *Financial Management*, 41(1), 187–205.

- Murfin, J., & Njoroge, K. (2015). The implicit costs of trade credit borrowing by large firms. *The Review of Financial Studies*, 28(1), 112–145.
- Naiker, V., Navissi, F., & Sridharan, V. G. (2008). The agency cost effects of unionization on firm value. *Journal of Management Accounting Research*, 20(1), 133–152.
- Ng, C. K., Smith, J. K., & Smith, R. L. (1999). Evidence on the determinants of credit terms used in interfirm trade. *Journal of Finance*, 54(3), 1109–1129.
- Petersen, M. A., & Rajan, R. G. (1997). Trade credit: theories and evidence. *Review of Financial Studies*, 10(3), 661–691.
- Png, I. P. L., & Samila, S. (2015). Trade secrets law and mobility: Evidence from “Inevitable Disclosure.” *Working Paper*, (February 2013).
- Porter, M. E. (1980). *Competitive strategy*. New York: Free Press.
- Qiu, B., & Wang, T. (2018). Does knowledge protection benefit shareholders? Evidence from stock market reaction and firm investment in knowledge assets. *Journal of Financial & Quantitative Analysis*, 53(3), 1341–1370
- Rajagopalan, N. (1997). Strategic orientations, incentive plan adoptions, and firm performance: Evidence from electric utility firms. *Strategic Management Journal*, 18(10), 761–785.
- Rajan, R. G., & Zingales, L. (1995). What do we know about capital structure? Some evidence from international data. *The Journal of Finance*, 50(5), 1421–1460.
- Rajan, R. G., & Zingales, L. (1998). Financial dependence and growth. *The American Economic Review*, 88(3), 559–586.
- Rice, T., & Strahan, P. E. (2010). Does credit competition affect small-firm finance? *The Journal of Finance*, 65(3), 861–889.
- Samila, S., & Sorenson, O. (2011). Noncompete covenants: Incentives to innovate or impediments to growth. *Management Science*, 57(3), 425–438.
- Schwartz, R. A. (1974). An economic model of trade credit. *The Journal of Financial and Quantitative Analysis*, 9(4), 643–657.
- Seifert, D., Seifert, R. W., & Protopappa-Sieke, M. (2013). A review of trade credit literature: Opportunities for research in operations. *European Journal of Operational Research*, 231(2), 245–256.
- Shang, C. (2020). Trade credit and stock liquidity. *Journal of Corporate Finance*, 62, 101586.
- Sheng, Y., Huang, Z., Liu, C., & Yang, Z. (2019). How does business strategy affect wage premium? Evidence from China. *Economic Modelling*, 83(September), 31–41.
- Shenoy, J., & Williams, R. (2017). Trade credit and the joint effects of supplier and customer financial characteristics. *Journal of Financial Intermediation*, 29, 68–80.
- Shortell, S. M., & Zajac, E. J. (1990). Perceptual and archival measures of Miles and Snow’s strategic types: A comprehensive assessment of reliability and validity. *Academy of Management Journal*, 33(4), 817–832.
- Simons, R. (1987). Accounting control systems and business strategy: An empirical analysis. *Accounting, Organizations and Society*, 12(4), 357–374.

- Simpsons, A., & Tamayo, A. (2020). Real effects of financial reporting and disclosure on innovation. *Accounting and Business Research*, 50(5), 401-421.
- Singh, P., & Agarwal, N. C. (2002). The effects of firm strategy on the level and structure of executive compensation. *Canadian Journal of Administrative Sciences*, 19(1), 42–56.
- Teirlinck, P. (2020). Engaging in new and more research-oriented R&D projects: Interplay between level of new slack, business strategy and slack absorption. *Journal of Business Research*, 120(July), 181–194.
- Thomas, A. S., Litschert, R. J., & Ramaswamy, K. (1991). The performance impact of strategy - manager coalssignment: An empirical examination. *Strategic Management Journal*, 12(7), 509–522.
- Thomas, A. S., & Ramaswamy, K. (1996). Matching managers to strategy: Further tests of the Miles and Snow typology. *British Journal of Management*, 7(3), 247–261.
- Treacy, M., & Wiersema, F. (1995). *The discipline of market leaders*. Reading: MA:Addison-Wesley.
- Wernerfelt, B., & Montgomery, C. A. (1988). Tobin's q and the importance of focus in firm performance. *The American Economic Review*, 78(1), 246–250.
- Woodridge, J. M. (2015). *Introductory econometrics: A modern approach* (Sixth Edition). Cengage learning.
- Yang, S. A., & Birge, J. R. (2017). Trade credit, risk sharing, and inventory financing portfolios. *Management Science*, 64(8), 3667–3689.
- Yin, D., Hasan, I., Kobeissi, N., & Wang, H. (2017). Enforceability of noncompetition agreements and firm innovation: does state regulation matter? *Innovation*, 19(2), 270–286.
- Yuan, Y., Lu, L. Y., Tian, G., & Yu, Y. (2020). Business strategy and corporate social responsibility. *Journal of Business Ethics*, 162(2), 359–377.
- Zingales, L., 2000. In search of new foundations. *Journal of Finance*, 55(4), 1623–1653.

Table 1

Descriptive statistics of variables in the baseline regression.

Panel A of Table 1 presents the descriptive statistics of the main variables. TCREDIT1 is the ratio of accounts receivable to total sales. TCREDIT2 is the natural logarithm of the accounts receivable ratio. TCREDIT3 is accounts receivable scaled by the ratio of sales to 365 days. STRATEGY is the strategy score with values ranging from 6 to 30, where high (middle)[low] value indicates prospector (analyzer)[defender] firms, respectively (see Bentley et al. 2013 for composition detail). PROSPECTOR equals one if the firm is classified as a prospector (STRATEGY score 24-30) and zero otherwise. ANALYZER equals one if the firm is classified as an analyzer (STRATEGY score 13-23) and zero otherwise. DEFENDER equals one if the firm is classified as a defender (STRATEGY score 6-12) and zero otherwise. FIRMAGE is the natural logarithm of the number of years since the firm first exists in the COMPUSTAT database. TANGIBILITY is the ratio of property, plant and equipment to total assets at the beginning of the year. FAMATURITY is the fixed asset maturity measured by the ratio of property, plant and equipment to depreciation. QUICK is the ratio of cash and short-term investments plus receivables to current liabilities. SALES-GROWTH is the percentage change in sales revenue. ROA is net income scaled by beginning of the year total asset. LEVERAGE is the ratio of long-term debt to total assets at the beginning of the year. SIZE is the natural logarithm of total sales. MTB is the ratio of market to book value of common equity at the beginning of the year. TURNOVER is total sales scaled by total assets minus accounts receivable. INVENTORY is the ratio of inventory to total assets. PAYABLE is the ratio of accounts payable to total assets. CASH is cash and cash equivalents scaled by total assets. CAPEX is capital expenditure scaled by total assets. CFVOL is the standard deviation of cash flow over year t-5 to t-1.

Panel A	N	Mean	Median	Std.Dev	Q1	Q3
Trade Credit Variables						
<i>TCREDIT1</i>	134,094	0.164	0.151	0.110	0.101	0.204
<i>TCREDIT2</i>	134,094	0.148	0.141	0.088	0.096	0.186
<i>TCREDIT3</i>	134,094	59.880	55.112	40.293	36.967	74.519
Strategy Variables						
<i>STRATEGY</i>	134,094	17.431	17.000	3.728	15.000	20.000
<i>PROSPECTOR</i>	6,723	24.986	25.000	1.176	24.000	26.000
<i>ANALYZER</i>	114,422	17.743	18.000	2.738	16.000	23.000
<i>DEFENDER</i>	12,949	10.753	11.000	1.376	10.000	12.000
Control Variables						
<i>FIRMAGE</i>	134,094	2.553	2.565	0.698	1.946	3.091
<i>TANGIBILITY</i>	134,094	0.307	0.258	0.223	0.130	0.434
<i>FAMATURITY</i>	134,094	7.253	6.404	5.032	3.727	9.441
<i>QUICK</i>	134,094	1.614	1.135	1.678	0.742	1.793
<i>SALEGROWTH</i>	134,094	0.116	0.077	0.329	-0.025	0.193
<i>ROA</i>	134,094	0.002	0.045	0.208	-0.012	0.090
<i>LEVERAGE</i>	134,094	0.254	0.223	0.226	0.082	0.363
<i>SIZE</i>	134,094	5.329	5.314	2.348	3.722	6.950
<i>MTB</i>	134,094	2.271	1.517	3.462	0.840	2.729
<i>TURNOVER</i>	134,094	1.715	1.445	1.335	0.837	2.176
<i>INVENTORY</i>	134,094	0.187	0.150	0.173	0.034	0.290
<i>PAYABLE</i>	134,094	0.163	0.105	0.235	0.067	0.163
<i>CASH</i>	134,094	0.156	0.078	0.205	0.028	0.197
<i>CAPEX</i>	134,094	0.062	0.044	0.060	0.022	0.081
<i>CFVOL</i>	134,094	0.068	0.028	0.129	0.015	0.061

Table 1

Panel B of Table 1 reports the average values of the firm characteristics for the subsamples based on firms' business strategy, namely prospectors (STRATEGY score 24-30), analyzers (STRATEGY score 13-23) and defenders (STRATEGY score 6-12). Our primary variable of interest, STRATEGY, is a discrete measure that places all firms on the continuum between PROSPECTOR (STRATEGY score 24-30) at one end and DEFENDER (STRATEGY score 6-12) at the other end with ANALYZER (STRATEGY score 13-23) in the middle. The variable PROSPECTOR equals one if the firm is classified as a prospector, and zero otherwise. The variable DEFENDER equals one if the firm is classified as a defender, and zero otherwise. The difference tests show the significance of the differences in means and medians between prospector firms and defender firms.

Panel B	PROSPECTOR (A)			ANALYZER			DEFENDER (B)			Difference Tests (A-B) p-value	
	N	Mean	Median	N	Mean	Median	N	Mean	Median	t-test	Wilcoxon
	<i>TCREDIT1</i>	6,723	0.173	0.166	114,422	0.165	0.152	12,949	0.151	0.135	< 0.001
<i>TCREDIT2</i>	6,723	0.157	0.154	114,422	0.149	0.141	12,949	0.137	0.126	< 0.001	< 0.001
<i>TCREDIT3</i>	6,723	63.001	60.604	114,422	60.219	55.330	12,949	55.260	49.179	< 0.001	< 0.001
<i>STRATEGY</i>	6,723	24.986	25.000	114,422	17.743	18.000	12,949	10.753	11.000	< 0.001	< 0.001
<i>FIRMAGE</i>	6,723	2.729	2.833	114,422	2.558	2.565	12,949	2.417	2.398	< 0.001	< 0.001
<i>TANGIBILITY</i>	6,723	0.363	0.343	114,422	0.311	0.260	12,949	0.239	0.161	< 0.001	< 0.001
<i>FAMATURITY</i>	6,723	8.088	7.396	114,422	7.241	6.395	12,949	6.919	5.786	< 0.001	< 0.001
<i>QUICK</i>	6,723	1.346	1.107	114,422	1.602	1.135	12,949	1.857	1.171	< 0.001	< 0.001
<i>SALEGROWTH</i>	6,723	0.177	0.119	114,422	0.118	0.079	12,949	0.058	0.041	< 0.001	< 0.001
<i>ROA</i>	6,723	0.030	0.064	114,422	-0.002	0.044	12,949	0.024	0.041	0.024	< 0.001
<i>LEVERAGE</i>	6,723	0.253	0.235	114,422	0.257	0.225	12,949	0.237	0.189	< 0.001	< 0.001
<i>SIZE</i>	6,723	6.800	6.959	114,422	5.350	5.355	12,949	4.372	4.276	< 0.001	< 0.001
<i>MTB</i>	6,723	2.632	1.747	114,422	2.309	1.548	12,949	1.746	1.170	< 0.001	< 0.001
<i>TURNOVER</i>	6,723	1.381	1.334	114,422	1.664	1.420	12,949	2.335	1.911	< 0.001	< 0.001
<i>INVENTORY</i>	6,723	0.203	0.186	114,422	0.183	0.145	12,949	0.215	0.175	< 0.001	< 0.001
<i>PAYABLE</i>	6,723	0.154	0.115	114,422	0.167	0.106	12,949	0.134	0.091	< 0.001	< 0.001
<i>CASH</i>	6,723	0.136	0.076	114,422	0.156	0.077	12,949	0.166	0.086	< 0.001	< 0.001
<i>CAPEX</i>	6,723	0.081	0.069	114,422	0.063	0.045	12,949	0.049	0.028	< 0.001	< 0.001
<i>CFVOL</i>	6,723	0.043	0.018	114,422	0.069	0.028	12,949	0.069	0.036	< 0.001	< 0.001

Table 2

The effect of business strategy on trade credit.

This table presents the results from regressing trade credit on business strategy variables and other control variables over the sample period between 1962 and 2019. Column 1 shows the results regressing the ratio of accounts receivable to total sales (TCREDIT1) on business strategy and control variables. Column 2 shows the results regressing the natural logarithm of the accounts receivable ratio (TCREDIT2) on business strategy and control variables. Column 3 shows the results regressing accounts receivable scaled by the ratio of sales to 365 days (TCREDIT3) on business strategy and control variables. Our primary variable of interest, STRATEGY, is a discrete measure that places all firms on the continuum between PROSPECTOR (STRATEGY score 24-30) at one end and DEFENDER (STRATEGY score 6-12) at the other end with ANALYZER (STRATEGY score 13-23) in the middle. Columns 4 -6 show the results regressing trade credit variables on prospectors (PROSPECTOR), defenders (DEFENDER), and other control variables. The variable PROSPECTOR equals one if the firm is classified as a prospector, and zero otherwise. The variable DEFENDER equals one if the firm is classified as a defender, and zero otherwise. Columns 7-9 show the results that exclude ANALYZER. All other variables are defined in Appendix 1.

	Full Sample			Full Sample			Prospectors and Defenders only		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	TCREDIT1	TCREDIT2	TCREDIT3	TCREDIT1	TCREDIT2	TCREDIT3	TCREDIT1	TCREDIT2	TCREDIT3
<i>STRATEGY</i>	0.0012*** (6.20)	0.0011*** (6.64)	0.4560*** (6.20)						
<i>PROSPECTOR</i>				0.0121*** (5.87)	0.0105*** (6.28)	4.4220*** (5.87)	0.0228*** (5.71)	0.0192*** (6.00)	8.3175*** (5.71)
<i>DEFENDER</i>				-0.0056*** (-3.12)	-0.0045*** (-3.13)	-2.0388*** (-3.12)			
<i>FIRMAGE</i>	-0.0043*** (-4.38)	-0.0034*** (-4.41)	-1.5603*** (-4.38)	-0.0043*** (-4.39)	-0.0034*** (-4.42)	-1.5617*** (-4.39)	-0.0005 (-0.23)	-0.0001 (-0.08)	-0.1643 (-0.23)
<i>TANGIBILITY</i>	-0.1969*** (-32.66)	-0.1610*** (-34.01)	-71.8712*** (-32.66)	-0.1938*** (-32.03)	-0.1583*** (-33.45)	-70.7249*** (-32.03)	-0.2056*** (-15.88)	-0.1698*** (-16.50)	-75.0557*** (-15.88)
<i>FAMATURITY</i>	0.0024*** (11.84)	0.0018*** (11.52)	0.8940*** (11.84)	0.0024*** (11.66)	0.0018*** (11.33)	0.8814*** (11.66)	0.0021*** (5.24)	0.0016*** (5.19)	0.7737*** (5.24)
<i>QUICK</i>	0.0084*** (12.62)	0.0068*** (13.08)	3.0729*** (12.62)	0.0084*** (12.62)	0.0068*** (13.08)	3.0754*** (12.62)	0.0076*** (6.24)	0.0061*** (6.48)	2.7726*** (6.24)
<i>SALEGROWTH</i>	0.0075***	0.0066***	2.7514***	0.0085***	0.0074***	3.0967***	0.0139***	0.0116***	5.0696***

	(4.93)	(5.62)	(4.93)	(5.65)	(6.41)	(5.65)	(3.59)	(3.88)	(3.59)
<i>ROA</i>	0.0055	0.0060**	2.0003	0.0038	0.0046	1.3777	0.0087	0.0088	3.1885
	(1.50)	(2.13)	(1.50)	(1.04)	(1.63)	(1.04)	(0.87)	(1.12)	(0.87)
<i>LEVERAGE</i>	-0.0035	-0.0024	-1.2918	-0.0038	-0.0026	-1.3955	0.0065	0.0049	2.3845
	(-1.12)	(-0.95)	(-1.12)	(-1.22)	(-1.05)	(-1.22)	(0.99)	(0.93)	(0.99)
<i>SIZE</i>	-0.0033***	-0.0023***	-1.1885***	-0.0027***	-0.0019***	-0.9975***	-0.0036***	-0.0026***	-1.3029***
	(-6.57)	(-6.08)	(-6.57)	(-5.92)	(-5.27)	(-5.92)	(-3.70)	(-3.31)	(-3.70)
<i>MTB</i>	0.0003*	0.0002	0.0991*	0.0003**	0.0002*	0.1157**	0.0005	0.0004	0.2004
	(1.72)	(1.61)	(1.72)	(2.02)	(1.93)	(2.02)	(1.18)	(1.03)	(1.18)
<i>TURNOVER</i>	-0.0110***	-0.0090***	-4.0243***	-0.0114***	-0.0094***	-4.1608***	-0.0090***	-0.0074***	-3.2810***
	(-19.24)	(-19.60)	(-19.24)	(-20.46)	(-20.78)	(-20.46)	(-9.07)	(-9.23)	(-9.07)
<i>INVENTORY</i>	-0.1363***	-0.1106***	-49.7568***	-0.1368***	-0.1110***	-49.9231***	-0.1437***	-0.1172***	-52.4663***
	(-23.47)	(-23.83)	(-23.47)	(-23.60)	(-23.96)	(-23.60)	(-11.49)	(-11.75)	(-11.49)
<i>PAYABLE</i>	0.1093***	0.0816***	39.8864***	0.1097***	0.0820***	40.0530***	0.1265***	0.0975***	46.1692***
	(18.08)	(18.77)	(18.08)	(18.25)	(18.95)	(18.25)	(9.99)	(10.33)	(9.99)
<i>CASH</i>	-0.1156***	-0.0965***	-42.2072***	-0.1155***	-0.0964***	-42.1707***	-0.1240***	-0.1037***	-45.2539***
	(-24.62)	(-26.02)	(-24.62)	(-24.60)	(-26.00)	(-24.60)	(-11.31)	(-12.01)	(-11.31)
<i>CAPEX</i>	0.0272***	0.0258***	9.9188***	0.0288***	0.0271***	10.5157***	0.0329	0.0316	12.0193
	(2.72)	(3.30)	(2.72)	(2.88)	(3.46)	(2.88)	(1.34)	(1.64)	(1.34)
<i>CFVOL</i>	-0.0528***	-0.0460***	-19.2753***	-0.0510***	-0.0445***	-18.6244***	-0.0353*	-0.0343**	-12.8715*
	(-6.90)	(-7.79)	(-6.90)	(-6.68)	(-7.56)	(-6.68)	(-1.82)	(-2.28)	(-1.82)
Industry-by-Year Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	134,094	134,094	134,094	134,094	134,094	134,094	19,672	19,672	19,672
Adjusted R2	33.2%	35.9%	33.2%	33.1%	35.8%	33.1%	35.9%	38.8%	35.9

Table 3

The influence of the Inevitable Disclosure Doctrine (IDD) on the relationship between business strategy and trade credit.

This table presents the results of the tests that exploit the staggered adoption of the Inevitable Disclosure Doctrine (IDD) by the U.S. state courts as an exogenous shock that significantly reduces talent supply. The test adopts a triple-differences approach (DiDiD) to examine the influence of talent supply on the relationship between business strategy on trade credit. Columns 1-3 use the business strategy score (STRATEGY) as the primary independent variable. Columns 4-6 use PROSPECTOR and DEFENDER as the main independent variables where PROSPECTOR equals one if the firm is classified as a prospector (STRATEGY score 24-30) and zero if the firm is classified as a Defender (STRATEGY score 6-12). All other variables are defined in Appendix 1.

	(1)	(2)	(3)	(4)	(5)	(6)
	TCREDIT1	TCREDIT2	TCREDIT3	TCREDIT1	TCREDIT2	TCREDIT3
<i>STRATEGY*IDD</i>	-0.0008*** (-2.99)	-0.0006*** (-3.08)	-0.2842*** (-2.99)			
<i>PROSPECTOR*IDD</i>				-0.0104*** (-2.73)	-0.0089*** (-2.72)	-3.8136*** (-2.73)
<i>DEFENDER*IDD</i>				0.0028 (1.03)	0.0024 (1.11)	1.0113 (1.03)
<i>STRATEGY</i>	0.0013*** (5.17)	0.0011*** (5.63)	0.4631*** (5.17)			
PROSPECTOR				0.0154*** (6.61)	0.0134*** (7.34)	5.6326*** (6.61)
DEFENDER				-0.0050** (-2.27)	-0.0042** (-2.27)	-1.8255** (-2.27)
IDD	0.0160*** (3.48)	0.0131*** (3.60)	5.8435*** (3.48)	0.0027 (1.25)	0.0020 (1.21)	0.9720 (1.25)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry-by-Year FE	Yes	Yes	Yes	Yes	Yes	Yes
N	117,140	117,140	117,140	117,140	117,140	117,140
Adjusted R2	34.5%	37.4%	34.5%	34.4%	37.4%	34.4%

Table 4

The influence of the bank branch deregulation on the relationship between business strategy and trade credit. This table presents the results of the tests that exploit the staggered adoption of two bank branch deregulation reforms as exogenous shocks to credit supply: 1) the Interstate Banking and Branching Efficiency Act (IBBEA) (Rice & Strahan, 2010; Shenoy & Williams, 2017); 2) the passage of intrastate bank branch deregulation (Jayaratne and Strahan, 1996). The test adopts a triple-differences approach (DiDiD) to examine how bank credit supply alters the relationship between business strategy on trade credit. Columns 1-3 use the business strategy score (STRATEGY) as the primary independent variable. Columns 4-6 use PROSPECTOR and DEFENDER as the main independent variables where PROSPECTOR equals one if the firm is classified as a prospector (STRATEGY score 24-30) and DEFENDER is coded as one if the firm is classified as a defender (STRATEGY score 6-12). All other variables are defined in Appendix 1.

	(1)	(2)	(3)	(4)	(5)	(6)
	TCREDIT1	TCREDIT2	TCREDIT3	TCREDIT1	TCREDIT2	TCREDIT3
<i>STRATEGY*IBBEA</i>	0.0004*** (3.16)	0.0003*** (3.39)	0.1411*** (3.16)			
<i>STRATEGY*INTRA</i>	0.0000 (0.10)	-0.0000 (-0.08)	0.0125 (0.10)			
<i>PROSPECTOR*IBBEA</i>				0.0006 (0.43)	0.0008 (0.67)	0.2338 (0.43)
<i>DEFENDER*IBBEA</i>				-0.0030** (-2.19)	-0.0024** (-2.27)	-1.0785** (-2.19)
<i>PROSPECTOR*INTRA</i>				-0.0017 (-0.57)	-0.0015 (-0.67)	-0.6294 (-0.57)
<i>DEFENDER*INTRA</i>				-0.0021 (-0.56)	-0.0010 (-0.34)	-0.7824 (-0.56)
<i>IBBEA</i>	-0.0083*** (-3.79)	-0.0070*** (-4.18)	-3.0186*** (-3.79)	-0.0014* (-1.94)	-0.0012** (-2.02)	-0.4954* (-1.94)
<i>INTRA</i>	0.0013 (0.18)	0.0021 (0.39)	0.4820 (0.18)	0.0023 (0.85)	0.0020 (0.94)	0.8353 (0.85)
<i>STRATEGY</i>	-0.0002 (-0.50)	-0.0001 (-0.34)	-0.0900 (-0.50)			
<i>PROSPECTOR</i>				0.0102* (1.72)	0.0083* (1.77)	3.7371* (1.72)
<i>DEFENDER</i>				0.0062 (1.02)	0.0045 (0.94)	2.2691 (1.02)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry-by-Year FE	Yes	Yes	Yes	Yes	Yes	Yes
N	96,398	96,398	96,398	96,398	96,398	96,398
Adjusted R2	37.8%	40.7%	37.8%	37.7%	40.6%	37.7%

Table 5

The effect of business strategy on trade credit: Cross-sectional analysis.

This table presents the results of OLS regressions for subsamples based on inventory, external financing dependence, financial constraint, and financial distress. TCREDIT1 is the ratio of accounts receivable to total sales. We measure external finance dependence using capital expenditure minus cash flows from operations, scaled by total assets (Rajan and Zingales, 1998). We measure financial constraints using KZ index (Kaplan and Zingales, 1997). The KZ index is higher for firms that are more constrained. We measure financial distress using Altman's Z-score (Graham et al., 1998) which is considered an inverse measure of financial distress. Lower Z-score indicates a higher probability of bankruptcy. For each variable, we define firms with above(below) the median as high(low) group. All variables are defined in Appendix 1.

	<i>TCREDIT1</i>							
	Inventory		External Finance Dependence		Financial Constraint		Financial Distress	
	High	Low	High	Low	High	Low	High	Low
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>STRATEGY</i>	0.0017***	0.0010***	0.0015***	0.0009***	0.0011***	0.0018***	0.0009***	0.0020***
	(20.01)	(7.19)	(14.09)	(7.01)	(10.17)	(14.55)	(6.92)	(19.35)
Difference p-Value	0.035**		0.040**		0.031**		0.000***	
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	67,047	67,047	91,610	42,484	71,058	63,036	71,870	62,224
Adjusted R2	51.9%	30.8%	35.7%	44.5%	40.3%	35.3%	33.3%	46.4%

Table 6

The impact of an increase in trade credit provision on firm performance.

This table shows how the change of trade credit provision can affect firm performance. Column 1 shows the results of the regression using firms' efficiency (FIRM_EFFICIENCY) as the dependent variable. Our firms' efficiency data is from Demerjian et al. (2012). It calculates a firm's efficiency and uses an optimization procedure to maximize the ratio of outputs to inputs. Column 2 use Tobin's q (TOBINSQ) as the dependent variable. INCREASE is a dummy variable equal to 1 if firms experience positive change in trade credit provision, and 0 otherwise. All variables are defined in Appendix 1.

	(1)	(2)
	FIRM_EFFICIENCY	TOBINSQ
<i>PROSPECTOR</i>	0.0245*** (4.43)	0.1458*** (4.84)
<i>DEFENDER</i>	-0.0018 (-0.68)	-0.1623*** (-7.64)
<i>PROSPECTOR*INCREASE</i>	0.0098** (2.38)	0.0859*** (3.70)
<i>DEFENDER*INCREASE</i>	-0.0030 (-1.29)	-0.0170 (-0.95)
<i>INCREASE</i>	-0.0010 (-1.25)	-0.0021 (-0.33)
<i>FIRMAGE</i>	-0.0032* (-1.86)	0.0334*** (2.68)
<i>TANGIBILITY</i>	-0.0921*** (-13.39)	-0.4070*** (-7.25)
<i>QUICK</i>	-0.0003 (-0.35)	-0.0071 (-0.88)
<i>SALEGROWTH</i>	0.0026 (1.43)	0.0714*** (3.67)
<i>LEVERAGE</i>	-0.0114*** (-2.73)	0.5779*** (10.24)
<i>SIZE</i>	0.0429*** (48.53)	-0.0046 (-0.85)
<i>MTB</i>	0.0032*** (12.31)	0.1201*** (30.08)
<i>CASH</i>	0.1067*** (15.94)	1.0301*** (17.25)
<i>CAPEX</i>	0.1167*** (7.95)	1.6906*** (13.43)
<i>CFVOL</i>	0.0439*** (5.33)	3.9116*** (28.86)
Industry-by-Year FE	Yes	Yes
N	98,333	119,419
Adjusted R2	48.0%	41.0%

Table 7

The effect of business strategy on accounts payable: Supply chain analysis

This table presents the results from regressing accounts payable on business strategy variables, trade credit, and other control variables. Columns 1-3 show the results regressing accounting payable on business strategy (STRATEGY), accounts payable (PAYABLE1, PAYABLE2, and PAYABLE3), and other control variables. Our primary variable of interest, STRATEGY, is a discrete measure that places all firms on the continuum between PROSPECTOR (STRATEGY score 24-30) at one end and DEFENDER (STRATEGY score 6-12) at the other end with ANALYZER (STRATEGY score 13-23) in the middle. Columns 4-6 show the results regressing accounting payable on PROSPECTOR, DEFENDER, trade payable (PAYABLE1, PAYABLE2, and PAYABLE3) and other control variables. The variable PROSPECTOR equals one if the firm is classified as a prospector, and zero otherwise. The variable DEFENDER equals one if the firm is classified as a defender, and zero otherwise. Columns 7-9 show the results that exclude ANALYZER. All other variables are defined in Appendix 1.

	Full Sample			Full Sample			Prospectors and Defenders only		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	PAYABLE1	PAYABLE2	PAYABLE3	PAYABLE1	PAYABLE2	PAYABLE3	PAYABLE1	PAYABLE2	PAYABLE3
<i>STRATEGY</i>	0.0023*** (5.45)	0.0023*** (5.40)	0.0023*** (5.45)						
<i>PROSPECTOR</i>				0.0150*** (3.38)	0.0147*** (3.31)	0.0150*** (3.38)	0.0206** (2.34)	0.0202** (2.30)	0.0206** (2.34)
<i>DEFENDER</i>				-0.0119*** (-3.62)	-0.0120*** (-3.65)	-0.0119*** (-3.62)			
<i>TCREDIT1</i>	0.5310*** (17.68)			0.5332*** (17.82)			0.4524*** (9.67)		
<i>TCREDIT2</i>		0.6478*** (17.81)			0.6508*** (17.97)			0.5602*** (9.91)	
<i>TCREDIT3</i>			0.0015*** (17.68)			0.0015*** (17.82)			0.0012*** (9.67)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry-by-Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	134,094	134,094	134,094	134,094	134,094	134,094	19,672	19,672	19,672
Adjusted R2	28.4%	28.0%	28.4%	28.4%	28.0%	28.4%	23.7%	23.5%	23.7%