

Competing in the Capital Market with a Good Reputation

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ABSTRACT

This study investigates how a good reputation generates competitiveness for a firm in the capital market. We distinguish two aspects of corporate reputation – trustworthiness and attractiveness – and identify their distinct impacts on reducing management and business risks of investors, respectively. Our findings suggest that trustworthiness enhances investors' expectations regarding a firm's motives, and gains the firm a competitive advantage from holding a low financing cost. Attractiveness, on the other hand, reduces investors' uncertainty regarding a firm's ability, and generates the firm a competitive advantage from a high flexibility in choosing different financing instruments. We further demonstrate the impacts of these two types of competitive advantage on the capital structure management of a firm.

Corporate Reputation Review (2012) 15, 198–221. doi:10.1057/crr.2012.7

KEYWORDS: *corporate reputation; competitive advantage; trust; attractiveness; capital structure*

INTRODUCTION

As an important intangible asset, corporate reputation helps reduce uncertainties about

a firm among its stakeholders (Weigelt and Camerer, 1988; Aaker and Jacobson, 1994; Pfarrer *et al.*, 2010), and may correspondingly influence a firm's performance. In empirical studies, scholars document that a good reputation is usually associated with a superior performance. Such a relation remains even when controlling for firms' performance in the past (Roberts and Dowling, 2002; Rindova *et al.*, 2005; Rindova *et al.*, 2010). Nevertheless, since classical finance theory suggests that investors' decisions are based on the fundamental information of a firm's financial performance, it tends to rule out a positive reputation–performance relationship. To clarify this puzzle, it is necessary to uncover the mechanism through which a good reputation reduces investors' uncertainties regarding a firm, and consequently identify how firms compete with a good reputation in the capital market. Understanding such a mechanism is crucial for firms with a high development potential. By achieving a good reputation, they are capable of acquiring adequate and reliable financing from investors, which is of a great importance for turning their potentials into a good performance.

Uncertainty is a fundamental issue in the capital market, which exposes investors to various risks for their investment (Baker and Wurgler, 2002). During the early 1970s, economists have employed the agency theory to describe a risk-sharing problem, using the metaphor of a contract (Jensen and Meckling, 1976). One of the intensively discussed agency problems is the conflict between firms and investors in the finance literature (see, eg, Myers and Majluf, 1984; Healy and Palepu, 2001). Due to the information asymmetry between these two parties, investors have difficulty in verifying a firm's motives to behave appropriately, for instance, judging whether the managers of a firm will strive to maximize shareholders' values. The severity of such a conflict between firms and investors reflects the level of a firm's management risk (Jensen, 1986). In addition to this risk, investors also bear a business risk. It stems from the uncertainty regarding a firm's potential growth opportunities (McConnell and Servaes, 1994), or in other words, its ability to achieve a forecasted cash flow. Bearing management and business risks in investment decision making, investors would demand a risk premium to compensate for the uncertainties of their investments. As a consequence, firms have to bear a high financing cost, as well as a barrier for choosing different financing methods, which reduces their accessibility to capital (Myers and Majluf, 1984; Jensen, 1986; Healy and Palepu, 2001).

Discussions on the role of reputation in reducing uncertainties in the capital market have emerged in different areas of literature. Existing studies vary from personal reputation of financial analysts such as auditors and underwriters (Beatty and Ritter, 1986; D'Aveni, 1990) to corporate reputation (Chemmanur and Paeglis, 2005; Farber, 2005; Herbig *et al.*, 1994), and from stock market performance in normal times (Baker and Haslem, 1973; Brammer *et al.*, 2006) to extraordinary circumstances such as IPOs

(Carter and Manaster, 1990; Helm, 2007) and corporate crises (Schnietz and Epstein, 2005). Particularly, Mazzola *et al.* (2006) and Gabbioneta *et al.* (2007) explain the uncertainty issue as the fundamental problem when discussing the way of constructing reputation in the capital market. They find that a good reputation helps reduce the ambiguity associated with the plans of managers.

This paper studies the impact of corporate reputation on reducing different uncertainties in the investment decision process (ie, management and business risks), which leads to a competitive position for a firm in the capital market. The contributions of this paper are twofold. First, it explains the reputation–performance relation by providing the causal path from a good reputation to a specific competitive advantage, and subsequently to a superior performance. Second, by further examining the specific aspects of corporate reputation, this study provides managerial guidelines to firms for managing a good reputation in order to gain competitiveness in the capital market.

To study the role of reputation in the capital market, we follow a three-step approach. First, we derive two reputation aspects – trustworthiness and attractiveness – from the demand of firms and investors for reducing uncertainty between them in the capital market. Second, we identify the strategic value of trustworthiness and attractiveness for establishing competitive advantages through reducing different types of uncertainty of investors about firms. We hypothesize that these effects on different types of uncertainty lead to different firm capital structures, and empirically test these hypotheses. Third, we identify the key antecedents associated with both reputation aspects. Because these antecedents are based on the fundamental information about a firm and help in explaining the formation of reputation, this approach provides insights in the strategic management of reputation.

THE ROLE OF REPUTATION IN REDUCING UNCERTAINTIES

Distinguishing Trustworthiness and Attractiveness

The definition of corporate reputation in the literature is diversified (Rindova *et al.*, 2010; Barnett *et al.*, 2006). Nevertheless, Rindova *et al.* (2010) address two integrated conceptual points of reputation: ... (a) *reputation refers to social cognitions, such as knowledge, impressions, perceptions, and beliefs and (b) that these social cognitions reside in the minds of external observers.* In accordance with this view, Barnett, Jermier and Lafferty integrate different definitions of reputation into one concept: reputation is defined as a *collective judgments of a corporation based on assessments of the financial, social, and environmental impacts attributed to the corporation over time* (2006: 34). This definition recognizes reputation as social cognitions, which refer to the behavioral beliefs. Differently, Caruana (2006) suggests that besides behavioral beliefs, a reputation also refers to two other components: affect and behavioral intentions. Employing the theory of planned behavior, he conceptualizes corporate reputation as an attitude, which reflects the three components above. This conceptualization of reputation adopts a stakeholder's perspective and views perceptions as resulting from beliefs. As suggested by Newbury (2010) and Ponzi *et al.* (2011), it ultimately results in behaviors supporting a firm.

We adopt these two types of integrated definitions of reputation: as a belief about a firm (Barnett *et al.*, 2006) and as an affect towards a firm (Caruana, 2006), and label them as trustworthiness and attractiveness in this study. These two perspectives on reputation differ in feature and scope. On the one hand, attractiveness refers to the feeling of stakeholders about a firm. Schoorman *et al.* (2007) suggest that such a feeling may create a temporary 'irrationality' about the data on a firm's ability. When a firm evokes such a good feeling among its stakeholders,

a firm may still attract investors, even when bearing the uncertainty problem. On the other hand, from the trustworthiness perspective, reputations are stakeholders' cognitions on different aspects of a firm. Such beliefs develop as interactions between stakeholders and the firm accumulate (Weber *et al.*, 2005). When these beliefs are positive, investors will hold the perception that firms are committed to behave towards their interests. Thus, a reputation for trustworthiness is considered as a belief, reflecting stakeholders' rational evaluations of a firm's motives over time. A similar comparison is made between cognition-based trust and affect-based trust (see Chua *et al.*, 2008).

High trustworthiness and high attractiveness do not always go hand in hand. For instance, high-tech firms in the internet bubble in the late 1990s are a good example of firms, which attract investors but which they do not consider as trustworthy. Lieberman and Asaba (2006) discuss the herd behaviors of analysts and institutional investors in that situation. They find that investors' evaluations of a high-tech firm do not solely depend on their own information. Instead, they regard a firm as an attractive investment object if other investors are confident at the firm's 'great prospects'. Investors' herd behaviors (ie, over the purchase of equity from untrustworthy firms) drive the internet bubble upward, and eventually lead to a fatal loss. Such an irrational imitation serves to enhance the firm's attractive status, but does not suggest that this firm will indeed behave towards investors' interests. This example shows that holding an attractive status does not ease investors' uncertainty on firms' motives. An opposite situation, then, is a trustworthy firm, which is not attractive to investors. Jensen (1986) suggests that compared to a firm with a variable free cash flow, that with a constant one is more engaged in investors' interests to fulfill scheduled payments, such as those for debt. A good example is retail companies. Holding a constant

free cash flow, these firms have a potential to access the capital market by using debt instruments. However, the low-risk low-return nature of the retailing business is not attractive to equity investors with a high expectation on returns. Narayanan (1988) points out that such an underpricing on these firms' value force them to stick to debt financing. This example shows that being a trustworthy firm does not ease investors' uncertainty on its ability. The two examples demonstrate that the two aspects of reputation cannot substitute each other.

Since trustworthiness and attractiveness are two reputation aspects, they can be both recognized as intangible assets. As stated in Fombrun and Shanley (1990), reputation in general enhances firm effectiveness by signaling current and potential exchange partners on value creation. As intangible assets, they may fit the resource-based view (RBV) framework: as economic resources, they generate competitive advantages that enable a firm to conceive of and implement strategies for improving its efficiency and effectiveness. Resources, or capabilities, enable a firm to acquire and develop its assets to achieve a superior performance than competitors (Dierickx and Cool 1989). Both Barney (1991) and Hall (1992) argue that reputation may be regarded as an intangible resource belonging to a firm and contributes to achieving a competitive advantage through differentiation. A growing body of theoretical research discusses the role of reputation in line with the RBV (Deephouse, 2000; Pfarrer *et al.*, 2010). Besides, many other papers identify the specific competitive advantages generated by reputation in different contexts (eg, Deephouse, 1999; Shamsie, 2003; Rindova *et al.*, 2005). Their findings support the RBV that reputation is a valuable intangible resource.

An important contribution of the RBV is to clarify the causality between corporate reputation and financial performance. Many empirical studies document that a good corporate reputation is associated with a good

financial performance (McGuire *et al.*, 1990; de la Fuente Sabate and de Quevedo Puento, 2003). However, the direction of causality is not always clear: some studies find that reputation leads to a good performance (Deephouse, 1997; Roberts and Dowling, 1997), while others suggest that performance is an antecedent to reputation rather than a consequence (Fryxell and Wang, 1994; Rose and Thomsen, 2004; Deephouse and Carter, 2005). This leads to a 'chicken or egg' dilemma: To what extent does corporate reputation enhance a firm's performance and to what extent does performance enhance reputation (Bergh *et al.*, 2010)? Roberts and Dowling (2002) employ the RBV to explain the competitive advantage that reputation creates on sustaining a superior financial performance. They find that the uncertainty about the underlying quality of a firm makes it hard for competing firms to offset the signaling benefits by a good reputation. This effect may create a circle that good reputation firms would engage in the actions to further enhance their reputation, and thus sustain its superior performance.

Reducing Investors' Uncertainty by Holding a Good Corporate Reputation

Reputation scholars argue that a good reputation can generate advantages to a firm competing in the capital market. For instance, Beatty and Ritter (1986) point out that when a firm is issuing common shares to the public, the underwriter's reputation enhances the firm's access to the capital market. More generally, Dowling (1994) argues that corporate reputation plays a role in attracting investors, which ensures a long-term good performance. In this study, we identify how corporate reputation serves in creating those competitive advantages through reducing investors' uncertainties.

Myers and Majluf (1984) and Jensen (1986) suggest that the constraints for a firm to access the capital market refer to bearing a high financing cost and limited flexibility

in choosing different financing instruments. The origin of these constraints stems from investors' uncertainties when making investment decisions, such as the management and business risks. Conversely, when these uncertainties are weakened, a firm has the potential to gain competitive advantages in the capital market (Modigliani and Miller, 1958; Titman and Wessels, 1988; McConnell and Servaes, 1994; Baker and Wurgler, 2002).

In the capital market, firms are subjected to financing costs because investors demand a higher return to compensate the risk of investment. As discussed by Jensen (1986), according to the agency theory, the financing costs stem from the conflicts of interests between managers and investors. Hirshleifer (1993) points out that since managers have the incentive to increase the size of a firm, when obtaining sufficient financing, they may not behave towards the interests of investors, but overinvest in low or even negative profit projects, in order to maximize their own benefits. Hence, investors bear the uncertainty that when investing in a firm, managers may not aim to maximize investors' benefits (Dierkens, 1991; Rajan and Zingales, 1995). In response, investors would require a high risk premium when contracting their investments, which, in other words, generates a high financing cost to the firm (Barney and Hansen, 1994; Healy and Palepu, 2001). With a high financing cost, firms bear limited access to the capital market and may pass up some growth opportunities.

The agency problem mainly stems from an uncertainty on firms' motives. In order to reduce such an uncertainty, it is vital to establish investors' certainty on firms' incentives of behaving towards their interests. As sophisticated decision makers, investors tend to take into account both publicly available and privately acquired information (Milgrom and Roberts, 1986). As a consequence, investors may infer expectations about the motives of a firm through the perceptions of other people. For instance, if

other stakeholders, such as employees and communities, perceive a firm with positive motives to improve its working environment and voluntarily contribute to societies, it may suggest that this firm has an incentive to fulfil stakeholders' expectations, including those of investors (Hillman and Keim, 2001). These collective perceptions, held by these stakeholders, are summarized in a firm's reputation for trustworthiness among stakeholders. We follow Boon and Holmes to define trustworthiness as 'positive expectations about another's motives with respect to oneself in situations entailing risk' (1991: 194). Notice that willingness to take risks is at the core of trust. Mayer *et al.* (1995) and Weber *et al.* (2005) argue that trust essentially means to take risk and leave oneself vulnerable to the actions of trusted others. This risky situation just reflects investment decisions in the capital market: If investors hold a high expectation about firms' motives to behave towards their interests, they are willing to expose themselves to the actions of invested firms. Therefore, whereas formed among other stakeholders, a reputation for trustworthiness helps reduce investors' uncertainty on firms' motives to behave towards investors' interests and welfare. This is parallel to the viewpoint in Suh and Houston (2010) on how trust is formed between buyers and suppliers.

Even if the uncertainty on motives is reduced, in the sense that managers share the same interests as investors, firms may still miss growth opportunities because investors also bear a business risk (ie, uncertainties on a firm's abilities to achieve a forecasted cash flow). Myers and Majluf (1984) point out that since managers hold more information about a firm's status than investors, when additional capital is needed, managers can attempt to attract equity investors by promising an unrealistic firm capability. In other words, acquiring additional capital through issuing new equity implies an overpricing of the firm's current value. Therefore, investors

ask for a high premium when contracting new equities. The firm, as a consequence, may pass by some growth opportunities. Such an information asymmetry problem is well discussed in Healy and Palepu (2001). This problem, however, does not apply to acquiring new capital through issuing new debt, because debtholders only demand a fixed interest to compensate the business risk (Myers, 1984). Firms suffering from such an information asymmetry problem, as a consequence, are bonded by debt financing, and would lose their flexibility in choosing different financing instruments. Since financing flexibility is crucial in implementing long-term financing strategies (McConnell and Servaes, 1994), it is in the firm's interest to reduce such an uncertainty caused by information asymmetry.

Similar to the arguments applied to the aforementioned uncertainty problem on motives, investors tend to price all available information relating to a firm's status. The confidence that other stakeholders hold in a firm's potential may help in mitigating this uncertainty problem, and enhance firms' attractiveness to investors. Besides, Mazzola *et al.* (2006) find that a knowledgeable, respected and committed firm leader may generate positive affect among investors regarding the corporate goals. The positive affect of stakeholders is reflected by a firm's attractiveness, that is, whether corporate constituents *feel good about this firm* (Fombrun and Gardberg, 2000). When a firm has a high attractiveness, stakeholders may have confidence in the firm's performance, and may commit to positive behavior towards these firms (Caruana, 2006; Ponzi *et al.*, 2011). For instance, consumers are willing to purchase their products and suppliers are willing to keep on contracting with these firms. All these valuable outcomes will eventually contribute to firm value. Therefore, investors will have positive opinion regarding a firm's ability for generating a high firm value in the future. As a consequence, they

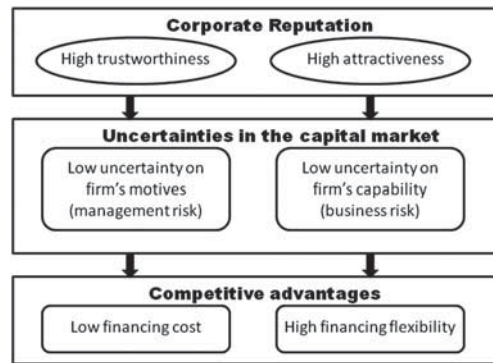


Figure 1: Conceptual model

would not regard the firm's equity issuing as a signal of overpricing the current firm value. Therefore, attractiveness gives an investor 'the needed first piece of evidence to take some initial risk' (Das and Teng, 1998: 504) on their investment decisions. In other words, such a reputation has a direct link to behavioral intentions (Caruana, 2006). This is in line with the discussion in Schoorman *et al.* (2007) that stakeholders intend to take a sudden risk not warranted by the available evidence because of positive affect. Therefore, a high attractiveness serves to reduce investors' uncertainty on a firm's capability.

To summarize, we have identified two aspects of corporate reputation, trustworthiness and attractiveness, which play important roles in reducing management and business risks of investors, respectively (ie, uncertainty on firms' motives and uncertainty on firms' ability). By reducing investors' uncertainty, firms have the potential to gain competitive advantages in terms of a low financing cost or a high financing flexibility, respectively. These arguments are summarized in the conceptual model illustrated in Figure 1.

THE ROLE OF REPUTATION IN CAPITAL STRUCTURE

Our hypotheses in this study are summarized in the research model shown in Figure 2.

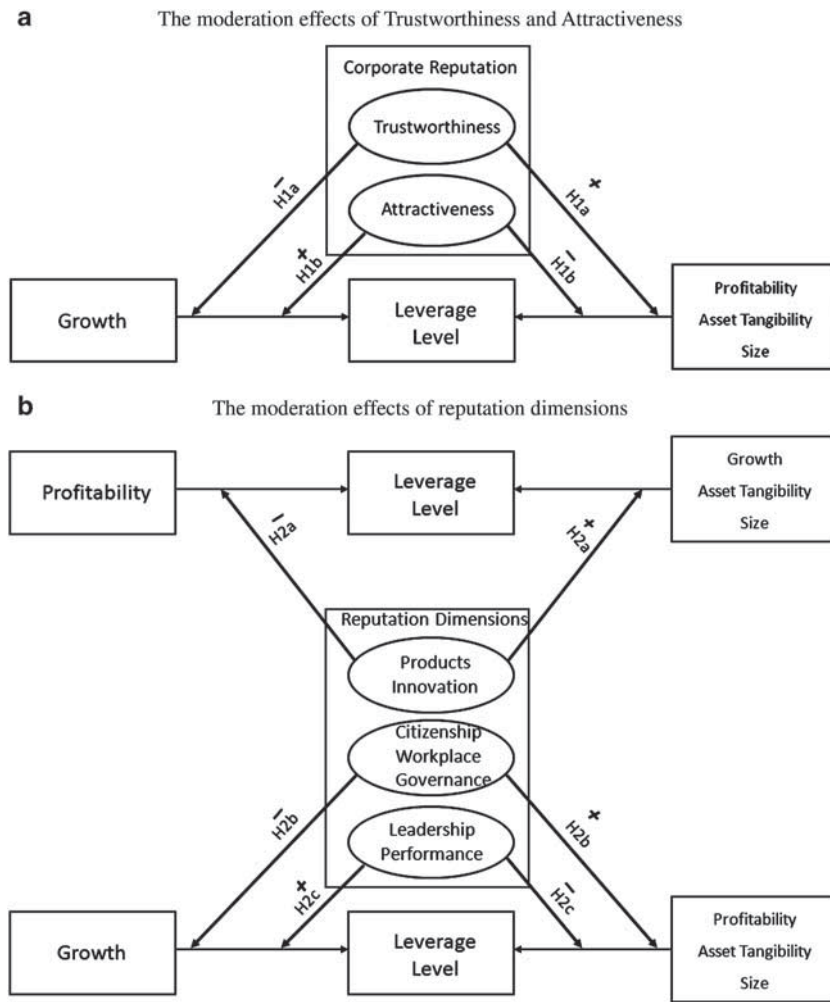


Figure 2: The research model on the moderation effects of reputation (a) The moderation effects of Trustworthiness and Attractiveness. (b) The moderation effects of reputation dimensions

We will discuss them in detail in the following paragraphs.

The Roles of Trustworthiness and Attractiveness in Capital Structure Management

Trustworthiness helps firms establish a competitive advantage through a low financing cost, while attractiveness helps firms gain a competitive advantage through a high flexibility, respectively. With different competitive advantages, a firm is capable of choosing different financing strategies. Thus

the two aspects of reputation should have different impacts on firms’ financing management.

Myers and Majluf (1984) point out that in general managers will follow a pecking order in choosing financing instruments: Using up internal funds first, then using up risky debts, and finally resorting to equity. This is due to the fact that the cost of external financing is higher than the cost of internal financing; between the two external financing instruments, the cost of equity is much higher than the cost of debt. The

pecking order of choices is summarized in the pecking order theory (POT) as a main stream theory on explaining the capital structure management (McConnell and Servaes, 1994; Baker and Wurgler, 2002). Following the pecking order choice is consistent with maximizing investors' wealth. Firms that have incentives to behave towards investors' interest will choose to voluntarily follow such a pecking order strategy. Firms with low financing flexibility, on contrary, are restricted to follow a pecking order strategy. They would not go for equity financing before using up their debt capacity, which results in a high level of debt. This further limits the firm to take only low risk projects and pass up the growth opportunities on high risk-high profit projects. However, a firm may deviate from the prediction of POT in managing its capital structure. As mentioned, when investors bear lower uncertainty on a firm's ability, the firm has more flexibility in using external funds. By choosing to issue equity when the market fairly prices its value, the firm with a high financing flexibility can deviate from the pecking order choice.

Different financing strategies result in different balances between financing instruments, that is, a firm's capital structure. A healthy capital structure is crucial for firms' long-term development. It should on the one hand bear limited risk, and on the other hand well finance the projects for the growth of the firm (Rajan and Zingales, 1995; Healy and Palepu, 2001; Sharfman and Fernando, 2005). Because firms are mainly financed either through debt or equity capital, a major indicator of capital structure is the ratio of debt to its total financing, which is called the leverage level of a firm. The different financing strategies result in different determinants in the leverage level. Thus, in order to explore which types of financing strategies are used by a firm, we can investigate the determinants of the leverage of the firm. Most empirical studies

agree on four determinants of leverage: growth, profitability, size and asset tangibility (Titman and Wessels, 1988; Smith and Watts, 1992; Rajan and Zingales, 1995).

We follow Rajan and Zingales (1995) to explain the relations between the four determinants and leverage. First, because firms with high growth opportunities have a potential to be more profitable, but endure a higher risk, managers may pursue high profits and tend to invest suboptimally (pursue risky projects for a potential high growth) to expropriate wealth from the shareholders (Myers and Majluf, 1984; Baker and Wurgler, 2002). Thus, if firms with a high growth issue new equity, it indicates that these firms have a high flexibility to deviate from the pecking order for financing. By issuing new equity, their leverage levels are correspondingly lower. Therefore, we should observe a negative relation between growth and leverage. When a strong negative relation between growth and leverage is observed among a group of firms, it indicates that the high-growth firms in this group indeed choose to deviate from the pecking order strategy. Second, profitability is an indicator of the capacity of internal financing. Having a higher profitability indicates a potentially larger amount of earnings available to be retained. Thus, profitability demonstrates the amount of internally generated funds. If firms with a high profitability use internal funds as much as possible, it suggests that they choose to follow the pecking order for financing, and they will have a low leverage level. Hence, we should observe a negative relation between profitability and leverage. When a stronger negative relation is observed among a group of firms, it indicates that the profitable firms in this group choose to follow the pecking order strategy more closely. Third, tangible assets are easy to collateralize (ie, have more assets to pay back debt at bankruptcy), and thus can reduce the cost of debt. Therefore it is considered as an indicator of potential

collaterals for debt. If firms with more tangible assets take the advantage to issue more debt, it suggests that they are willing to follow the pecking order strategy, resulting in higher leverage levels. Therefore, we should observe a positive relation between asset tangibility and leverage. When a stronger positive relation is observed among a group of firms, it indicates that firms with a high tangibility in this group follow the pecking order strategy more closely. Fourth, large firms are more diversified and less prone to bankruptcy, so size is considered as a proxy for the inversed probability of default. If costs of financial distress limit leverage, the greater diversification of larger firms enables them to have more access to the debt market. Similar to asset tangibility, size has a positive relation with the leverage level. When a stronger positive relation is observed among a group of firms, it indicates that large firms in this group follow the pecking order strategy more closely. To summarize, if firms' leverage levels are more determined by the determinants of profitability, asset tangibility and size, their financing strategy is more in line with the POT; conversely, if firms' leverage level are more determined by growth, their financing strategy is more deviated from the POT.

Because firms with high attractiveness or high trustworthiness have different competitive advantages and apply different financing strategies, we should observe different impacts of the four determinants on leverage. As discussed, firms with high attractiveness have the competitive advantage of flexibility in selecting financing instruments. Thus their financing managements are not bonded by the pecking order choice of financing instruments, and have less difficulty to catch growth opportunities. As a consequence, we conjecture that the leverage levels of firms with a high attractiveness would be more associated with growth, and less associated with the other determinants. Conversely, firms with high trustworthiness

would behave towards investors' interest and follow the pecking order choice of the financing instruments. Therefore, we conjecture that the leverage levels of firms with a high trustworthiness would be more associated with profitability, asset tangibility and size, while they would be less associated with the other determinants. These statements are formulated in the following hypotheses:

H1a: *Attractiveness strengthens the effect of growth, but weakens the effects of profitability, asset tangibility and size on leverage.*

H1b: *Trustworthiness strengthens the effects of profitability, asset tangibility and size, but weakens the effect of growth on leverage.*

The Key Factors Associated with Trustworthiness and Attractiveness

We have identified the roles of trustworthiness and attractiveness in the capital market as intangible resources: They help reduce investors' uncertainties from different aspects, and build up different competitive advantages, respectively. However, the formation of these two aspects is not clear yet. To figure out this problem, it is necessary to clarify the key factors associated with a positive trustworthiness or attractiveness. These factors are in line with the attributes that Fombrun and Shanley (1990) consider as the fundamental information on the basis of which a reputation is formed. On the one hand, by identifying these key factors, we can further explore which key factors correspond to trustworthiness and which correspond to attractiveness. On the other hand, it provides managerial guidelines to managers who intend to improve firm's reputation on either aspect, in order to achieve competitive advantages in the capital market.

Fombrun and Shanley (1990), in a pioneering paper examining the determinants of corporate reputation, find that a mix of signals (ie, marketing, accounting, institutional and strategy signals) drive the construction

of reputation perceived by the general public. These determinants can be regarded as the beliefs on different aspects of a firm. Different belief attributes may work through distinct mechanisms in enhancing competitive advantages and result in different impacts. When measuring the reputation perceived by financial analysts, Mazzola *et al.* (2006) and Gabbioneta *et al.* (2007) suggest attributes such as leadership, financial performance, disclosure and internal control systems. The attributes are further explored in other studies (Farber, 2005; Basdeo *et al.*, 2006; Rindova *et al.*, 2007). To summarize, their findings suggest that the attributes of reputation may function differently and have unequal influences on firm value, because different stakeholders may have different concerns on certain attributes, which is oriented by their own interests.

We consider the effects of a broader range of attributes and try to find out those key factors demonstrating the impacts on enhancing firm's competitive advantages in the capital market, which are comparable with the impacts of trustworthiness or attractiveness. We follow van Riel and Fombrun (2007) to focus on seven factors: *Performance, Products/Services, Innovation, Workplace, Governance, Citizenship* and *Leadership*, and discuss the potential functions of these factors.

Products are the core of a firm. A high product quality and a good value for money reflect a firm's capability of production in the past, which will reduce the information asymmetry for customers, as well as building up a reliable image of the firm (Rose and Thomsen, 2004; Walsh and Beatty, 2007). Similar to products, innovation also has a double-sided effect. On the one hand, R&D is considered as risky projects of a firm. By focusing on innovation, a firm has an advantage in high growth with a potential risk (McAlister *et al.*, 2007). On the other hand, a high perceived innovativeness is associated to successful R&D history in the past, which also builds up a consistent image for the firm

(Mizik and Jackson, 2003). Therefore, we predict that they may have similar impacts as both trustworthiness and attractiveness: Firms with high beliefs on products and innovation may have competitive advantages through holding a low financing cost as well as a high flexibility in choosing financing instrument. The financing strategy in terms of the pecking order choice is mixed: Such firms may issue equity when having a high growth opportunity, or issue debt when having more collateral assets, while preserving the capacity for internal funding for the future. In other words, profitability, an indicator of internal funding, is less considered by these firms. Consequently, in the leverage determination model, the effects of growth, asset tangibility and size will be enhanced, while the effect of profitability will be weakened.

Citizenship, defined as voluntary firm actions designed to improve social or environmental conditions, may not maximize firms' present value of their future cash flows (Mackey *et al.*, 2007), since firms who support good causes and have a positive influence on society may bear a higher cost thus inducing uncertainty about their profit. Thus good citizenship does not generate attractiveness to investors. However, the lack of affect is compensated by the increased legitimacy of the firm (Maignan and Ralston, 2002). This legitimacy may translate into an important resource during a crisis, which reduces the possibility of bankruptcy (Schnietz and Epstein, 2005) and thus enhance the trust in the firm. Hence, we conjecture that beliefs on citizenship have a similar impact as trust. Second, workplace plays a role in enhancing credibility among employees. Since it reflects how a firm creates equal opportunities for employees and rewards employees fairly, a higher status on workplace is associated with higher quality human resources, which may enhance a reliable image of the firm (Gotsi and Wilson, 2001). Similar to citizenship, maintaining a good workplace is costly, which

does not necessarily generate attractiveness to investors. Third, governance is also a signal of trustworthiness. A clear, independent and credible internal control is important for building up confidence in the effectiveness of the control system (Mazzola *et al.*, 2006). Good governance, as a consequence, demonstrates a high transparency of a firm's internal control and a firm's commitment to high legitimacy. However, because governance is not directly associated with profit generation, it does not necessarily attract investors. In sum, the three attributes, citizenship, workplace and governance all reflect a firm's legitimacy. Because they contribute to a firm's credibility, we conjecture that they have similar impacts as trustworthiness, which creates competitive advantage in holding a low financing cost.

A good reputation for performance indicates a high profitability in the past, which could be a positive signal for the firm's asset quality and stable cash flow in the future (Roberts and Dowling, 2002). Thus, it reflects the information on a firm's strategic success and contributes to attract investors. A good reputation for leadership is a key factor to success (Carter, 2006; Mazzola *et al.*, 2006). Firms with strong and appealing managers who have a clear view for the future development may have a better communication with the investors. Both beliefs on performance and leadership provide relatively concrete information regarding a firm's strategy, either through the firms' financial reports or the communication with its managers, which help reduce the information asymmetry between firms and investors. Particularly, MacGregor *et al.* (2000) point out that positive affect is associated with a number of specific attributes, such as the quality of management or the prospects for financial success. Therefore, performance and leadership may have similar impacts as attractiveness, which creates a competitive advantage on having flexibility in financing management.

On the basis of this reasoning, we predict that:

H2a: *Products and innovation have mixed moderation effects on the leverage determinants: They strengthen the effects on growth, asset tangibility and size, while weaken the effect on profitability.*

H2b: *Citizenship, workplace and governance have a similar moderation effect as trustworthiness in the leverage determinant model: They strengthen the effects of profitability, asset tangibility and size, while weaken the effect of growth in the leverage determination model.*

H2c: *Leadership and performance have a similar moderation effect as attractiveness in the leverage determinant model: They strengthen the effects of growth, while weaken the effect of profitability, asset tangibility and size in the leverage determination model.*

VARIABLE CONSTRUCTION AND MODEL SPECIFICATION

Data and Variable Construction

Our dataset consists of firms' corporate reputation data and financial data. To measure corporate reputation, we use two datasets provided by the Reputation Institute (RI)¹: One reflects the two reputation aspects, trustworthiness and attractiveness, and the other includes the seven key factors associated with these two aspects.

For trustworthiness and attractiveness, we consider two reputation dimensions from the survey data conducted by the RI, *Trust* and *Feeling*, as their proxies, respectively. We name them as *Trustworthiness* and *Attractiveness*. The RI is a management consultancy company founded in 1997 and operates in 30 countries. It conducts an annual online survey between January and February to measure the corporate reputations of companies in 29 countries, starting from 2001. There

are around 60,000 general public respondents annually. The survey is based on a set of questions posed to respondents familiar with a company, and the answers are used to create scores of the four underlying reputation dimensions: *Trust*, *Feeling*, *Esteem* and *Admire & Respect* on a scale ranging from 0 to 100. *Trust*, which is considered as a measure of *Trustworthiness*, is constructed through the question asking respondents to indicate their agreement with the statement that '[company] is a company that I trust' in the survey conducted by RI (Ponzi *et al.*, 2011). *Feeling*, which is considered as a measure of *Attractiveness*, is constructed through respondents' agreement with the statement '[company] is a company I have a good feeling about'. The RI reports the overall measure of reputation, the *Pulse Score*, which is computed as the mean of the four dimensions, as an indicator of the overall reputation of a company. The topline results are published annually in *Forbes* as a ranking of 'The World's Most Respected Companies'.

Meanwhile, the RI survey also creates a standardized approach to measure the scores on seven key factors of reputation: Performance, Products/Services, Innovation, Workplace, Governance, Citizenship and Leadership, which are referred to as the RepTrak™ dimensions. These attributes are developed from the Reputation Quotient approach (Fombrun *et al.*, 1999). By combining 23 reputation indicators based on the annual survey, RI forms these seven core factors to represent the corresponding reputation attributes of each firm. We employ the RepTrak™ dimensions data as measures on the key factors.

In our empirical model, since the *Pulse Score* involves a potential 'halo effect' (a general positive evaluation affecting the scores on the specific attributes), we regard it as the common factor underlying the different reputation attributes, while estimating the true scores on the attributes we are interested in (Trustworthiness and Attractiveness)

by eliminating the common information. This is in line with Roberts and Dowling's (2002) method to remove financial information from the reputation scores. We regress *Trustworthiness*, *Attractiveness* and the seven reputation factors on the normalized *Pulse Score* (ie, having a mean of zero and a standard deviation of one). The residuals of the regressions contain the remaining information that represents the sole contribution of the original reputation variables. We name the residuals as *Trustworthiness*, *Attractiveness*, *Products*, etc, respectively.

We choose the firms appearing on this list in 2007, 2008 or 2009, where the general public at the measuring time may base their judgments on the firms' performances in the year before.² In total, 553 companies are measured in either 1, 2 or all of the 3 years with both the reputation and the seven RepTrak™ dimensions.

We match the companies with their end-year financial data in 2006, 2007 and 2008 from *Compustat North America* and *Compustat Global* and *EMDB* by their *GVKEY* codes. We drop those companies without complete available financial data on *Compustat*. For those companies from different countries, but referring to the same *GVKEY* code, we only maintain the one from the country of origin. We also drop those firms whose financial year end in June. This selection results in our final dataset consisting of 424 firm-year observations for the 2006–2008 period.

For the financial data, following Rajan and Zingales (1995), we collect and construct the following variables (see Baker and Wurgler, 2002, for more details): Total assets (TA), book debt (BD), book equity (BE), market equity (ME), retained earnings (RE), earning before interest, tax, and depreciation (EBITDA), net plant, property and equipment (PPE), and net sales (NS).

On the basis of those variables, we could construct the financial variables used in our model. The dependent variable in our analysis is the *Market Value Leverage*. It is

calculated as $BD/(TA-BE + ME)$, and is the end-year *Market Value Leverage* in 2006, 2007 and 2008, respectively. We focus on the market leverage because compared to the book leverage it could better reflect the market evaluation of a company. A low market leverage level corresponds to an appreciation of a firm's equity value (ie, more access to the equity market), which indicates a lower cost of external financing and more flexibility in capital structure management. Other independent variables are: *Market-to-Book Ratio*, recognized as the indicator of growth, calculated as $(TA-BE + ME)/TA$; *Profitability*, calculated as $EBITDA/TA$; *Asset Tangibility*, calculated as PPE/TA ; and *Net Sales* as the indicator of size. These four variables were considered by Rajan and Zingales (1995) as the determinants of leverage level.

The dataset includes firms from 25 industries. The telecommunications and energy industries present the highest percentages in the sample, 10.8 percent and 10.1 percent, respectively. In addition, the dataset includes 22 countries. Half of the firms in the sample are originated from the United States, while European firms take about 30 percent, and the rest are from other countries.

Regarding the descriptive statistics of the dataset, for the financial indicators, *Market Value Leverage* has a significant negative correlation with *Market-to-Book Ratio*, *Profitability* and *Asset Tangibility*, which suggests that a firm with a high growth, profitability or asset tangibility encounters a low market value leverage level. The correlations among the four leverage determinants are either modest or low, which suggests that models involving the four determinants do not suffer from multicollinearity. For the reputation indicators, we find that firms with a high trustworthiness (attractiveness) do not necessarily have a high attractiveness (trustworthiness). This observation is in line with our theoretical distinction between these two reputation aspects. For instance, among

the 424 firm-year observations, we obtain 20 high-trustworthiness, low-attractiveness observations defined as those with a *Trustworthiness* score in the highest 25 percentile and an *Attractiveness* score in the lowest 25 percentile, and 32 low-trustworthiness, high-attractiveness observations defined in the opposite way. The high trustworthiness/low attractiveness firms include companies like the utility companies Kepco (Korea) and Enel (Italy), Air France, and telecommunications provider Telenor. The high trustworthiness of these companies may be based on the relatively focused nature of their businesses. Because of this focused nature, the identities of these firms might be transparent to the general public, which may help the public to determine the motives of these firms. However, due to the fact that these firms are involved in fewer product or service categories, they are only recognized and approached by specific groups, thus it is harder for them to generate a high attractiveness at a broader level. The low-trustworthiness/high-attractiveness observations, on the other hand, are mainly large conglomerates like the Brazilian industrial conglomerate Votorantim and Swiss-Swedish engineering conglomerate ABB. These firms implement a diversified strategy, which might allow them to make better use of the resources of a core business (Rumelt, 1982) or to share resources across businesses (Chatterjee and Wernerfelt, 1991). Since their businesses are successful in different fields, the general public may hold a good feeling regarding their strengths and capabilities. However, with a high diversification, managers of these firms may add businesses to increase their private benefits, which will cause an agency problem (Jensen, 1986). Such a problem makes it hard for stakeholders to determine what these firms stand for and how to position them, leading to a lack of clarity on firms' motives, which may explain the relatively low trustworthiness. These examples show that our measures of

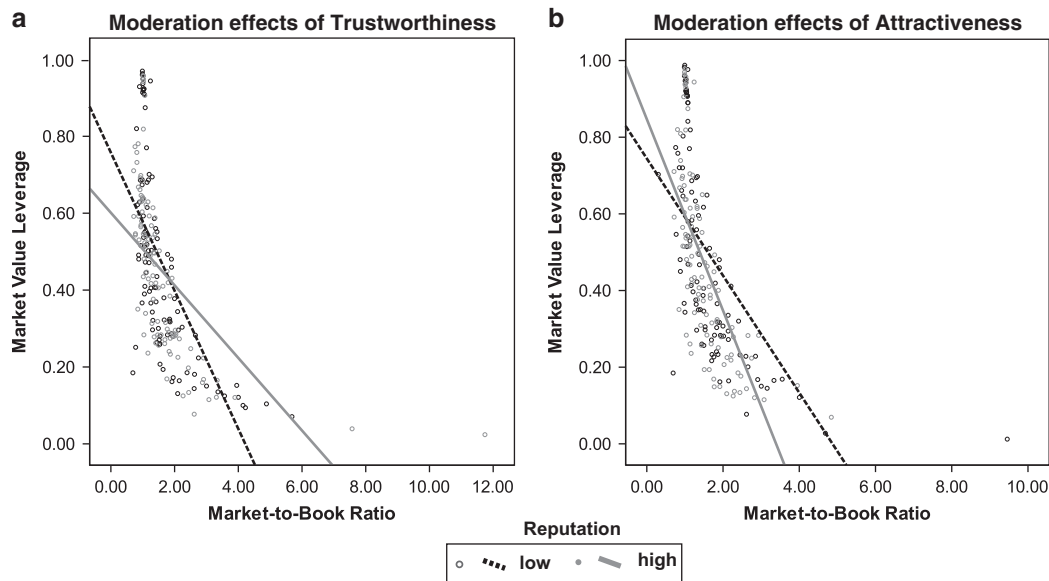


Figure 3: Moderation effects of trustworthiness and attractiveness on leverage determination market-to-book ratio (a) Moderation effects of Trustworthiness (b) Moderation effects of Attractiveness

Trustworthiness and *Attractiveness* using regression residuals seem to have the face validity.

Model Specification

To investigate the hypotheses addressed in the section ‘The Role of Reputation in Capital Structure’, we apply the leverage determination model as in Rajan and Zingales (1995), and then analyze whether the effects of different determinants are strengthened or weakened when incorporating corporate reputation.

To illustrate the impact of corporate reputation, we make the scatter plot between *Market Value Leverage* and *Market-to-Book Ratio* for high and low reputation firms³ and plot the fitted lines, respectively. We consider two reputation measures: *Trustworthiness* and *Attractiveness* (see the plots in Figure 3). We observe that the general negative relation between *Market-to-Book Ratio* and *Market Value Leverage* is weakened for those firms with higher *Trustworthiness*, while the

plot on *Attractiveness* shows an opposite moderation effect. The difference between the plots illustrates the prediction of our theory that the two dimensions of reputation play different roles in reducing investors’ uncertainty.

In order to formally test our theory, we follow the leverage determination model in Baker and Wurgler (2002) as

$$MVL_i = \beta_0 + \beta_1 MTB_i + \beta_2 PRO_i + \beta_3 AT_i + \beta_4 \log(NS_i) + \varepsilon_i. \quad (1)$$

Here the ε_i is a well-behaved error item. We expect to observe that the coefficients of the four financial determinants are consistent with aforementioned predictions.

We then introduce *Trustworthiness* and *Attractiveness* into this model as moderation factors. This procedure helps to identify that by excluding the common information (ie, *Pulse score*), whether the two aspects of reputation, *Trustworthiness* and *Attractiveness* have different impacts on reducing

investors' uncertainty. Then we modify the model (1) as follows.

$$\begin{aligned}
 MVL_i = & \beta_{0,1} + \beta_{1,1}MTB_i + \beta_{2,1}PRO_i \\
 & + \beta_{3,1}AT_i + \beta_{4,1} \log(NS_i) \\
 & + \beta_{0,2}Trustworthiness_i \\
 & + \beta_{1,2}MTB_i * Trustworthiness_i \\
 & + \beta_{2,2}PRO_i * Trustworthiness_i \\
 & + \beta_{3,2}AT_i * Trustworthiness_i \\
 & + \beta_{4,2} \log(NS_i) * Trustworthiness_i + \varepsilon_i
 \end{aligned}
 \tag{2}$$

where the *Trustworthiness* can be replaced by *Attractiveness* when testing the effects of each dimension. We expect that the coefficients of the interactions items present the signs as we predicted in the section 'The Roles of Trustworthiness and Attractiveness in Capital Structure Management'.

The last attempt is to investigate the impacts of reputation attributes (ie, RepTrak™ dimensions) on the leverage determination model. Substituting the *Trustworthiness* in model (2) by the residuals of the seven RepTrak™ dimensions (ie, *Products*, etc) respectively clarifies this issue, and empirically tests our predictions in H2.

RESULTS

Our theory predicts that *Trustworthiness* and *Attractiveness* should present opposite moderation effects on the leverage determination model as summarized in H1. We first focus on the significances and the signs of the moderation effects, that is, $\beta_{j,2}$, for $j=1,2,3,4$ in model (2). By comparing the signs of the coefficients in two models with *Trustworthiness* and *Attractiveness*, respectively, we form a brief view on the validity of our hypothesis. Moreover, in model (2) the coefficient of the determinant *Market-to-Book Ratio* is $\beta_{1,1} + \beta_{1,2}Trustworthiness_i$; (and a corresponding equation applies to the model that includes *Attractiveness*). Similarly, we can get the coefficients of the

other determinants. Then, by estimating the model, we could quantitatively evaluate the impact of each determinant on the leverage level conditional on different levels of reputation or reputation dimensions. The quantitative analysis helps justify the economic significances of the moderation effects. We first present the signs of the moderation effects in the results, then analyze the quantitative effects. In addition, we identify different moderation effects of the key factors of reputation, as addressed in H2.

The Moderation Effects of Trustworthiness and Attractiveness

We start by considering the original finance model (1). The result is in the first column of Table 1. It suggests that growth and profitability have a significant negative impact on *Market Leverage Level* at the 0.01 confidence level, while *Asset Tangibility* has a significant positive impact. This result is consistent with the predictions and empirical results in Rajan and Zingales (1995). However, *Net Sales* does not show a significant effect on leverage as suggested in literature.⁴ The leverage determination model (1) fitted by our dataset is considered as the benchmark, and we further evaluate the models with the measures on reputation dimensions.

When introducing the interaction with reputation dimensions, we observe a significantly positive moderation effect of *Trustworthiness* on *Asset Tangibility* and a significantly negative moderation effect of *Attractiveness* on *Market-to-Book Ratio* both at the 0.05 confidence level. Notice that the original impacts of *Asset Tangibility* and *Market-to-Book Ratio* on the leverage level are positive and negative, respectively. We conclude that *Trustworthiness* strengthens the impact of *Asset Tangibility* and *Attractiveness* strengthens the impact of *Market-to-Book Ratio*. These observations confirm our prediction in H1 that *Trustworthiness* and *Attractiveness* reduce investors' uncertainties from different

Table 1: Moderation Effects of *Trustworthiness* and *Attractiveness* by OLS

	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>
1 (Constant)	0.69*** (0.10)	0.65*** (0.10)	0.67*** (0.10)
Market-to-Book Ratio	-0.05*** (0.01)	-0.05*** (0.09)	-0.059*** (0.09)
Profitability	-2.01*** (0.13)	-1.96*** (0.12)	-1.94*** (0.13)
Asset Tangibility	0.10*** (0.04)	0.10** (0.04)	0.10** (0.04)
Net Sales	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)
2 <i>Trustworthiness</i>		-0.12* (0.07)	
3 <i>Attractiveness</i>			-0.04 (0.09)
Interaction with Market-to-Book Ratio		0.01 (0.01)	-0.02* (0.01)
Interaction with Profitability		-0.02 (0.09)	0.09 (0.09)
Interaction with Asset Tangibility		0.07** (0.03)	0.04 (0.03)
Interaction with Net Sales		0.01 (0.01)	0.00 (0.01)
R^2	0.62	0.63	0.64
F -test	173.05***	78.84***	81.63***

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Dependent variable: Market Value Leverage

aspects. However, except the two observed moderation effects, the other interaction terms are not significant as predicted in our conjecture.

The second approach is to quantify the impacts of the determinants conditional on the reputation dimensions. We only consider the significant moderation effects (ie, *Trustworthiness* on *Asset Tangibility*, *Attractiveness* on *Market-to-Book Ratio*). By a quantitative analysis, we assess how much the high and low reputation firms differ.

We enter specific *Trustworthiness* or *Attractiveness* values to identify the economic impacts of reputation dimension. The 25th and 75th percentiles of *Trustworthiness* (ie, -0.8 and 0.82) are employed as the conditioning

levels of the low and the high trustworthiness. By setting *Trustworthiness* to -0.8, we get the coefficient of *Asset Tangibility* as 0.044. Considering a one-standard deviation shock on *Asset Tangibility*, that is, increasing or decreasing *Asset Tangibility* by 0.2129, the corresponding leverage change is then 0.9 percent. Compared to the standard deviation of *Market Value Leverage*, 24.04 percent, it is a negligible effect. It suggests that the determining effect of *Asset Tangibility* on the leverage level is diminished for firms with low trustworthiness. However, when setting the *Trustworthiness* to 0.82, the coefficient of *Asset Tangibility* is 0.1574. In this case, a one standard deviation shock on *Asset Tangibility* corresponds to a leverage change of 3.4 percent.

The economic significance is considerable. Therefore, *Asset Tangibility* is a significant determinant of the leverage level only for firms with high trustworthiness. This is in line with our theory that more trustworthy firms have more incentive in following the pecking order strategy by using tangible asset to collateral for obtaining more debt capital. Such a trustworthy behavior corresponds to a lower financing cost.

A similar approach on *Attractiveness* suggests different effects on *Market-to-Book Ratio*. By conditioning on the 75 percentile and 25 percentiles of *Attractiveness* (ie, 0.82 and -0.84), we get the corresponding coefficients of *Market-to-Book Ratio* as -0.07 and -0.04 . As a result, a one standard deviation shock on *Market-to-Book Ratio* corresponds to leverage changes of 8.3 percent and 5.1 percent. Compared to the standard deviation of *Market Value Leverage*, these effects are economically significant and the difference is considerable. Therefore, *Market-to-Book Ratio* is a significant determinant of the leverage level for both firms with high and low *Attractiveness*. However, for firms with a high *Attractiveness* the determining effect is higher. This is in line with our theory that more attractive firms can use growth opportunities to attract more equity financing, which indicates a higher flexibility in choosing different financing instruments.

In sum, the results from our regression analysis partially confirm our H1 in predicting the moderation effects of trustworthiness and attractiveness. The bottom-line is that trustworthiness and attractiveness present different moderation effects on the capital structure determinants. This is due to the fact that they generate different competitive advantages.

The Moderation Effects of the Seven Key Factors

The regression results on the seven reputation dimensions are shown in Table 2.

Table 3 further highlights the significances and signs of the interaction terms with leverage determinants, as well as the comparison with the results of *Trustworthiness* and *Attractiveness*.

From Table 3, we observe that the moderation effects of the reputation dimensions can be categorized into two groups. Within the same group, the reputation dimensions present similar patterns, while the impacts of the dimensions across groups are different.

Group 1: *Performance, Leadership, Products and Innovation. They weaken the negative effect of Profitability, while Products and Innovation also strengthen the positive effect of Asset Tangibility.*

Group 2: *Citizenship, Workplace and Governance. They weaken the negative effect of Market-to-Book Ratio, while Citizenship and Workplace also strengthen the negative effect of Profitability.*

It is clear that the moderation effects in the two groups are in different directions, particularly on *Profitability*. Specifically, the moderation effects of the dimensions in Group 2 are all consistent with our conjecture on the effect of trustworthiness. For the attributes in Group 1, the weakening effect on *Profitability* is in line with our conjecture on the effects of attractiveness. However, a subgroup, *Products and Innovation*, strengthens the positive effect of *Asset Tangibility*, which is in line with our conjecture on the effects when both *Trustworthiness* and *Attractiveness* are high.

The results on the reputation dimensions provide further evidence supporting our theory. For instance, in the analysis of *Trustworthiness*, we do not observe the weakening effect on *Market-to-Book Ratio* and the strengthening effect on *Profitability*. The impacts of the dimensions in Group 2 fill this

Table 2: Moderation Effects of Reputation dimensions by OLS

	Model 1	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
1 (Constant)	0.69** (0.10)	0.63*** (0.10)	0.65** (0.10)	0.64** (0.10)	0.62** (0.09)	0.53** (0.09)	0.65** (0.10)	0.61** (0.10)
Market-to-Book Ratio	-0.05** (0.01)	-0.05*** (0.09)	-0.07** (0.01)	-0.07** (0.01)	-0.05** (0.01)	-0.05** (0.01)	-0.06** (0.01)	-0.05** (0.01)
Profitability	-2.01** (0.13)	-1.96*** (0.13)	-1.86** (0.12)	-1.93** (0.13)	-1.90** (0.12)	-1.71** (0.13)	-1.97** (0.13)	-2.00** (0.13)
Asset Tangibility	0.10** (0.04)	0.09* (0.04)	0.11** (0.04)	0.10* (0.04)	0.11** (0.04)	0.02 (0.05)	0.10* (0.04)	0.10* (0.04)
Net Sales	0.01 (0.010)	0.01 (0.01)	0.01 (0.01)	0.02* (0.01)	0.01* (0.01)	0.02** (0.01)	0.01* (0.01)	0.02* (0.010)
4 Performance		-0.01 (0.02)						
5 Citizenship			-0.04* (0.02)					
6 Workplace				-0.03* (0.02)				
7 Products					-0.08** (0.02)			
8 Innovation						-0.07** (0.02)		
9 Governance							-0.04* (0.02)	
10 Leadership								-0.04* (0.02)
Interaction with Market-to-Book Ratio		0.00 (0.00)	0.01** (0.00)	0.01** (0.00)	0.00 (0.00)	-0.00 (0.00)	0.01* (0.00)	0.00 (0.00)
Interaction with Profitability		0.06** (0.02)	-0.14** (0.03)	-0.05* (0.03)	0.05* (0.03)	0.12** (0.03)	-0.01 (0.03)	0.05* (0.03)
Interaction with Asset Tangibility		-0.00 (0.01)	-0.01 (0.01)	0.01 (0.01)	0.05** (0.01)	0.01 (0.01)	0.01 (0.01)	-0.00 (0.01)
Interaction with Net Sales		0.00 (0.00)	0.01* (0.00)	0.00 (0.00)	0.00* (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
R ²	0.62	0.65	0.65	0.64	0.69	0.69	0.64	0.64
F-test	173.05**	83.77**	86.76**	80.85**	100.48**	102.00**	80.32**	82.26**

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Dependent variable: Market Value Leverage

Table 3: Moderation Effects Identification

	<i>Sign of significant coefficients</i>			
	<i>Market-to-Book Ratio</i>	<i>Profitability</i>	<i>Asset Tangibility</i>	<i>Net Sales</i>
Original effects	− ***	− ***	+ ***	
<i>Moderation effects</i>				
Trustworthiness			+ **	
Attractiveness	− **			
Performance		+ ***		
Citizenship	+ ***	− ***		+ **
Workplace	+ ***	− *		
Products		+ *	+ ***	+ *
Innovation		+ ***	+ *	+ *
Governance	+ **			
Leadership		+ *		

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Dependent variable: Market Value Leverage

gap. Similarly, the weakening effect of attractiveness on *Profitability* is now demonstrated by the determinants in Group 1. The categorization of reputation determinants suggests that they play different roles in capital structure management, and the difference matches our predictions. Specifically, the dimensions in Group 2 stand on the *Trustworthiness* side. The only exception is the subgroup of Group 1 consisting of *Products* and *Innovation*. From the empirical result, they present moderation effects predicted by combining a high *Trustworthiness* and a high *Attractiveness*. Therefore, we further divide Group 1 into Group 1a: *Performance* and *Leadership*, which are considered as the dimensions in line with *Attractiveness*; and Group 1b: *Products* and *Innovation*, which are in line with both *Attractiveness* and *Trustworthiness*.

The empirical results of the seven reputation dimensions are consistent with our conjecture on how they are associated with *Trustworthiness* and *Attractiveness*. Therefore, we label the reputation dimensions according to their roles in the capital market: *performance* and *leadership* represent a firm's 'strategy'; *citizenship*, *workplace* and *governance* reflect a firm's 'legitimacy'; *products* and

innovation indicate a firm's 'capability'. We further employ the principle component analysis with Varimax rotation on the seven reputation determinants. We extract the first three components, which account for 75 percent of the total variation. Each component is defined by a group of determinants with high loadings, which are consistent with our categorization. That is, *performance* and *leadership* load highly on component 1 and low on the others; *products* and *innovation* load highly on component 2 and low on the others; and *citizenship*, *workplace* and *governance* load highly on component 3 and low on the others. Therefore component 1 reflects 'strategy', component 2 reflects 'capability' and component 3 reflects 'legitimacy'. We regard these newly constructed components as three reputation drivers that help form the corporate reputation in capital market.

DISCUSSION

Our study addresses two fundamental uncertainty problems between firms and investors: Uncertainty about a firm's motives and uncertainty about a firm's capability. These uncertainties correspond to management and business risks to investors, respectively, and

cause different barriers to a firm competing in the capital market: A high financing cost and an inflexibility in choosing financing instruments. We then clarify the strategic role of corporate reputation as an intangible resource, in reducing investors' uncertainties. We define two reputation aspects: Trustworthiness and Attractiveness. One reveals firms' motives to behave towards investors' welfare and the other explains the formation of investors' confidence on a firm's ability. By theorizing these two reputation aspects as two distinct intangible resources, we identify that the former resource mainly yields the competitive advantage of holding a general low financing cost, while the latter creates the competitive advantage of flexibility for choosing financing instruments. By achieving lower uncertainties, both dimensions enhance the competitive advantages to a firm in the capital market.

We contribute to the reputation literature by distinguishing the two different aspects of reputation, and empirically identifying their distinct roles in capital structure management. As emphasized by Pfarrer *et al.* (2010), different types of perceptions may have different effects, and these effects can be predicated by theoretical notions. While they focus on the effects of reputation versus celebrity, our concern is within the different impacts of distinct reputation aspects. Although previous studies generally address the competitive advantages generated by a good reputation, this paper further distinguishes two reputation aspects, and clarifies the theoretical mechanism through which they reduce different uncertainties in the capital market. Our results suggest that to simply consider reputation as an overall evaluation may obscure its value in creating different competitive advantages. Because the underlying driving forces of trustworthiness and attractiveness vary, they function through distinct mechanisms and their values for generating behavioral intentions are different. Therefore, it may be useful in

future research to explore the impacts of different aspects of trustworthiness and attractiveness on other markets or management issues.

This study also provides empirical evidence to explain the bounded rationality among investors in the capital market. Under the assumption of rationality in the classical finance theory, investors only use technical fundamentals to make investment decisions. However, behavior finance scholars tend to indicate that other factors are often used by investors to gauge the value of securities. From a psychological perspective, such a behavior can be explained by bounded rationality (Arthur, 1994; Kahneman, 2003). Attractiveness associated with a certain firm is a powerful basis to judge its capability, which can be considered by investors as such an additional factor to assess the value of the firm's securities. MacGregor *et al.* (2000) point out that affect is part of a coherent psychological framework for the way in which investors evaluate an investment. Our findings support the view that an emotional factor such as attractive reputation can influence investors' judgments.

Studying the impact of the key factors associated with trustworthiness and attractiveness provides management guidelines, because these key factors refer to the fundamental attributes that managers can influence. Our results suggest that managers should improve relevant specific aspects of reputation in order to gain competitive advantages for their firms in the capital market. Although it is in the firm's best interest to improve its reputation in general, it is not costless to engage in reputation management behaviors. Therefore, under budget or capacity constraints, it is useful to understand which reputation aspects are most likely to produce a competitive advantage on demand. A firm that intends to obtain flexibility in choosing different financing instruments may try to increase its attractiveness by establishing its reputation on those associated

key factors, such as leadership and performance. This strategy could be beneficial to new firms: although as new players in the capital market, it is hard for them to build up a reputation on trust, which requires a consistent behavior in a long run. Attractiveness may still provide them the opportunity of being highly valued by investors, which gives the firm more access to external funds to capture growth opportunities, for example, a committed and respected leader, who has a good reputation for past achievements and is personally involved in investor relation (Mazzola *et al.*, 2006). Another key issue is to maintain a profitable performance and to present the potential to develop in the future.

On the other hand, firms that strive to achieve a low financing cost can improve their reputation for trustworthiness by strengthening their reputations on citizenship, workplace and governance. In general, these aspects imply three types of choices: (1) supporting good causes and environmental responsibility; (2) offering fair rewards and career development opportunities to employees; (3) high transparency and openness of a firm.

In addition, because the reputation dimensions – products and innovation – play a role in reducing uncertainty by both reducing uncertainty on a firm's motives and uncertainty on a firm's ability, strengthening these two dimensions may have twofold benefits for a firm's capital structure management. By obtaining competitive advantages on a low financing cost and a high flexibility, the firm may balance the pros and cons of the pecking order strategy according to its needs.

In a similar study on the role of reputation in the financial market, Mazzola *et al.* (2006) examine reputation formation in financial markets by interviewing financial analysts. They find slightly different reputation attributes compared to ours. Two attributes in their results, 'strategic plans' and 'leadership' are in line with our 'strategy' dimension.

Their 'internal control systems' construct functions similarly to our dimension on 'legitimacy'. However, in addition to the three attributes in their study, we find that 'capacity', the core value creation indicator of a firm, is also widely considered by firm constituents. This suggests that a reputation for good products and services could generate attractiveness, in contrast to Gabbioneta *et al.*'s (2007) findings. Although the different results may be attributed to the distinct data and research methods, we argue that products and innovation are the key indicators of potential earnings in the future, which are indispensable for creating a reliable image of a firm in order to attract investors.

We are aware of potential limitations our data may suffer from. First, although it is documented that reputation formed among the general public has an impact on stakeholders' perception, the impacts may differ from that of reputation formed among investors. Since the reputation data we employ are obtained from surveys among the general public, our results might have been different if we had measured corporate reputation perceived among investors. Nevertheless, by employing the current data, we observe significant impacts of reputation on reducing different types of investor uncertainties and on the capital structure determination model. For future research, a reputation dataset based on a survey among investors may further contribute to identify the role of reputation. Second, we measure the two reputation aspects, *Trustworthiness* and *Attractiveness*, by a single item. Rossiter (2002) suggests that if an attribute has virtually unanimous agreement by raters as to what it is, and they clearly understand that there is only one characteristic being referred to when the attribute is posed, there is no need to use more than a single item to measure it in the scale. Since these two reputation aspects are abstract attributes, it is likely that a single-item measure is not sufficient. However, our results suggest that

the single-item measured *Trustworthiness* and *Attractiveness* are capable of identifying the different impacts of these two reputation aspects. For future research, a different approach on measuring these aspects may help to examine the consistency of the results.

NOTES

- 1 For more information about the data, please see the RI website at <http://www.reputationinstitute.com/knowledge-center/global-pulse>, or the discussion in Ponzi *et al.* (2011).
- 2 Since the Global reputation data starts from 2006, it is the earliest year that we could obtain data. However, RepTrak™ scores are not measured for many companies in 2006, so we decide to choose the data starting from 2007.
- 3 High reputations are defined as those above the 75 percentile of all reputation measures, while low reputations are those below the 25 percentile.
- 4 One potential explanation of the insignificance of size is that only large firms are considered in constructing the reputation data. Thus, the firms in our sample are among the 600 largest firms in the world, which may weaken the effect of size on the leverage level.

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