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Information Asymmetry and Investor Valuations of Initial Public Offerings: Two Dimensions of Organizational Reputation as Stock Market Signals

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ABSTRACT The uncertainty and information asymmetry that surround initial public offering firms (IPOs) often introduce difficulties for potential investors to discern organizational value, thereby leading to 'underpricing'. Using the signaling theory, we investigate the role of organizational reputation in the underpricing of IPOs. We analyze 463 initial public offerings in China from the period of 2010 to 2016 and find that *being known for quality* and *generalized favorability* dimensions of reputation are negatively related with underpricing on the first day of trading. In addition, we find that the negative effects of organizational reputation on underpricing are mediated by investor attention.

KEYWORDS initial public offering, investor attention, organizational reputation, signaling

INTRODUCTION

In initial public offerings (IPOs), the uncertainty and information asymmetry between firm insiders and external investors often introduce difficulties for potential investors to discern the potential value of IPO firms, thereby enabling organizational reputation to serve as a valid signal used by investors to gauge potential firm value. By contrast, certain factors, such as underwriter reputation (Carter & Manaster, 1990), board structures (Certo, 2003), and management stability (Perkins & Hendry, 2005), are widely accepted as valid signals of firm value; as yet, the role of organizational reputation has hardly been considered.

Organizational reputation is seminally defined as 'a perceptual representation of a company's past actions and future prospects that describes the firm's overall appeal to key constituents when compared to other leading rivals' (Fombrun, 1996: 72). Following prior research, we argue that organizational reputation is directly linked to investor evaluation of firms at IPOs because investors associate

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reputation with potential organizational value. Furthermore, past research has devoted limited attention to the signaling recipients. Signal receivers may also play a critical role in affecting how investors understand firm IPOs (Connelly, Certo, Ireland, & Reutzel, 2011). In other words, organizational reputation may serve as an important signal of value in IPOs but only such that those investors become aware of those signals. Therefore, we draw from research on signaling theory to examine how organizational reputation, acting as an important signal, influences investor behavior and choices during the IPO process. In this manner, we contribute to the substantive body of research on firm IPO in three primary ways.

First, our study adds to the scant literature that has emphasized the multidimensionality of organizational reputation (Deephouse & Carter, 2005; Lange, Lee, & Dai, 2011; Rindova, Petkova, & Kotha, 2007; Wei, Ouyang, & Chen, 2017) but has seldom explored the possible effects of such dimensions. Investors must evaluate relatively new firms, particularly during the IPO process, in which they have access to imperfect firm-specific information. Different dimensions of organizational reputation contain various types of evaluator perceptions (Lange et al., 2011). Thus, understanding the influences of the different dimensions of organizational reputation on IPO performance is of particular theoretical value.

Second, we apply a signaling theory framework to understand IPOs in terms of the magnitude of underpricing. We argue that when information about a firm's economic potential is rare, evaluators rely on two important dimensions of organizational reputation to understand and form impressions of a relatively new firm: (1) 'the degree to which stakeholders evaluate an organization positively on a specific attribute', which is called *being known for quality* (Lange et al., 2011: 155; Rindova & Martins, 2012; Wei et al., 2017); and (2) the perceived degree of a firm's aggregate favorability based on multiple overall corporate attributes or characteristics, which is called *generalized favorability* (Lange et al., 2011; Wei et al., 2017). Thus, our study sheds light on how external investors in the IPO process make decisions with reputational signals. Moreover, our results make a conceptual contribution to the IPO literature by highlighting the role of two dimensions of organizational reputation as signals and the relevance of investor attention that mediate the effect of organizational reputation on IPO underpricing.

Third, although the issue of organizational reputation has elicited widespread attention, most empirical results are based on US data, and this study is one of the few that are based on large emerging markets. With the development of China's capital market and the shareholding reform, China has emerged as a major IPO market. Chinese investors received IPOs enthusiastically and the phenomenon of IPO underpricing, well documented in other stock markets of the world, was also observed in China. To our knowledge, this is the first study that empirically examines the effects of two dimensions of organizational reputation on IPO underpricing of Chinese companies, addressing a noticeable absence in the literature.

THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

Information Asymmetry, Signaling, and IPO Underpricing

IPO underpricing is a common phenomenon in most stock markets in developed and emerging countries (Loughran, Ritter, & Rydquist, 1994). When an offering price is lower than the first-day closing prices, an offering is said to be underpriced. A common perception in academia is that IPO underpricing may hurt new publicly listed firms attempting to raise capital for expansion (Arthurs, Hoskisson, Busenitz, & Johnson, 2008). This situation has spawned extensive literature that attempts to explain the reasons for relieving this phenomenon. One of the most popular is Rock's (1986) argument that IPO underpricing stems from an information asymmetry problem between the issuing firms and public investors.

An IPO exhibits information asymmetry (Cohen & Dean, 2005; Pollock & Rindova, 2003). During a firm IPO, investors are incentivized to evaluate relatively new firms with which they are unacquainted. Unlike the current owners of the firm, public market investors encounter challenges in evaluating newly public firms and may be uncertain about the company's potential value and behavioral tendency (Certo, 2003; Cohen & Dean, 2005; Stiglitz, 2000). The reasons for this situation are as follows. First, IPO firms have no established and clear performance records in public markets. Firm capabilities and propensities are typically not directly observable, and corporations are complex, multifaceted entities (Lange et al., 2011; Schultz, Mouritsen, & Gabrielsen, 2001). Second, most firm information received by the public is sifted or embellished by company insiders. Especially in the IPO process, top managers tend to show only the bright side of the firm to the investors. Third, 'most organizations are a complex creation of leadership, culture, technology, products, and strategy, placed within a market and industry context that adds to that complexity' (Cohen & Dean, 2005: 684).

Signaling theory provides a valuable framework to explain the influence of information asymmetry in economics and how external investors value newly issued stocks. Most of the studies on signaling theory are based on the seminal work of Spence (1973), which indicated that potential employers do not have complete information about the quality of job applicants. Thus, they may actively screen job applicants by discerning observable information when the desired attribute cannot be observed. To reduce information asymmetry, which hampers the selection ability of employers, job applicants tend to invest in reliable and observable indicators that signal their worth (e.g., high educational attainment).

From the perspective of signaling theory, underpricing is a costly signal by which high-quality firms choose to separate themselves from low-quality firms. High-quality firms deliberately sell their shares at lower prices than the market believes they are worth, thereby deterring low-quality firms from imitating (Welch, 1989). However, underpricing is so substantially prevalent that many finance researchers have explained it as an equilibrium phenomenon because it

is expected to be a function of the information asymmetry between IPO firms and potential investors (Carter & Manaster, 1990; Cohen & Dean, 2005). Thus, IPO underpricing is often considered a type of compensation to uninformed investors for the risk of trading against superior information (Carter & Manaster, 1990; Cohen & Dean, 2005). For present study purposes, underpricing can be viewed as a reasonable 'indicator of the information asymmetry that exists between the issuer and investors and can be used as a gauge of the extent to which certain signals are utilized by investors' (Cohen & Dean, 2005: 685). As a result, information available about firm value prior to an IPO will reduce information asymmetry and reduce underpricing (Rock, 1986).

Signaling theory has been applied to explain firm IPO performance in numerous management studies (Table 1). For example, leaders of a firm in an IPO stack their top management team with older, more qualified and experienced managers can send a message to external investors about the firm's quality and reduce IPO underpricing (Cohen & Dean, 2005). To date, previous corporate management research has indicated that the heterogeneity of top management team (Zimmerman, 2008), upper echelon backgrounds (Higgins & Gulati, 2006), R&D spending (Heeley, Matusik, & Jain, 2007), founders' retained ownership and prestige (Bruton, Chahine, & Filatotchev, 2009; Chahine, Filatotchev, & Zahra, 2011), board structures and characteristics (Certo, Daily, & Dalton, 2001; Filatotchev & Bishop, 2002), and organizational virtue (Payne, Moore, Bell, & Zachary, 2013) can serve as valid signals and influence IPO performance. In sum, positive attributes or characteristics that just a part of IPO firms can achieve may serve as signals to decrease IPO underpricing.

While most empirical results above are based on US data, the signaling theory is also effective in the Chinese stock market (e.g., Mok & Hui, 1998; Su & Fleisher; 1999; Tian, 2003; Wei et al., 2017; Yu & Tse, 2006). Due to the high level of uncertainty and information asymmetry in the Chinese market, there may be incentives for high-quality firms to underprice in order to signal their value. Moreover, frequent seasoned equity offerings among Chinese firms suggest that signaling may be a reasonable explanation for underpricing (Yu & Tse, 2006).

Effect of Being Known for Firm Quality and Generalized Favorability

Given the information asymmetry during the IPO process, potential investors become increasingly likely to neglect some information (e.g., listing prospectus) released by the firm. Consequently, investors become especially sensitive to effective signals of firm quality (Cohen & Dean, 2005). Podolny (1994: 459) argued that 'when the quality or value of commodities potentially exchanged is difficult to discern, actors cannot compare exchange opportunities by focusing on the commodities themselves'. In other words, investors evaluate firm value on the basis of the signal that they feel genuinely and ignore information deemed dubious and manipulated. Furthermore, the effectiveness of the signaling mechanism is

Table 1. Select review of firm IPO management research using signaling theory and empirical data

Year	*Author(s)/Journal*	*Signal*	*Major results*
2001	Certo, Daily, & Dalton *Entrepreneurship Theory and Practice*	Board structure	Board size and board reputation are negatively associated with IPO underpricing.
2002	Filatotchev & Bishop *Strategic Management Journal*	Board characteristics	A high pro-portion of nonexecutive directors and the intensity of their extraorganizational links reduce the extent of underpricing of the share issue.
2005	Cohen & Dean *Strategic Management Journal*	Top management team (TMT) legitimacy	TMT legitimacy is associated with lower levels of underpricing and the magnitude of this effect is rather substantial.
2006	Higgins & Gulati *Strategic Management Journal*	TMT composition	Investor decisions in times of firm IPOs are affected by the employment affiliations and roles of TMT members and by a young firm's partnership with a prestigious lead underwriter.
2007	Heeley, Matusik, & Jain *Academy of Management Journal*	R&D spending	R&D spending is positively associated with underpricing.
2008	Zimmerman *Entrepreneurship Theory and Practice*	TMT heterogeneity	Heterogeneity in the TMT's functional background and educational background is associated with greater capital raised through an IPO.
2009	Bruton, Chahine, & Filatotchev *Entrepreneurship Theory and Practice*	Retained ownership	Founders' retained ownership in an entrepreneurial IPO is associated with IPO underpricing.
2011	Chahine, Filatotchev, & Zahra *Entrepreneurship Theory and Practice*	Founders' and board members' prestige	Top management team's external board experiences reduce IPO underpricing.
2013	Payne, Moore, Bell, & Zachary *Strategic Entrepreneurship Journal*	Organizational virtue	Signaling organizational virtue in prospectuses reduces IPO underpricing.

determined partly by the credibility and observability of the signal (Connelly et al., 2011). First, the signal should be highly correlated with the unobservable value of a firm. In fact, the signal must be difficult and costly for low-value firms to imitate (Davila, Foster, & Gupta, 2003; Spence, 1976; Zhang & Wiersema, 2009). Second, the signal should be highly observable; that is, receivers can notice the information to a certain extent (Connelly et al., 2011).

Organizational reputation can play an important role by assisting investors in judging the probable outcomes of interacting with a newly public firm. Organizational reputation is often regarded as a multidimensional construct (Lange et al., 2011; Love & Kraatz, 2009; Rindova et al., 2007; Rindova,

Williamson, Petkova, & Sever, 2005; Wei et al., 2017). Lange et al. (2011) identified three dimensions of reputation, namely, familiarity with an organization ('being known'), expectations for specific corporate attributes or outcomes ('being known for something'), and perceptions of the firm's general favorability ('generalized favorability'). The two latter dimensions of reputation involve perceivers' evaluation by investors and can thus be regarded as signals (Connelly et al., 2011). Figure 1 provides a schematic of the role of organizational reputation in signaling.

Three characteristics of the two dimensions of reputation make them important in the signaling process. First, they can create competitive advantages. The resource-based view suggests that these dimensions of reputation can be understood as social approval assets that are based on stakeholders' favorable collective perceptions of a companies' culture, leadership, and identities, thereby providing firms with sustainable competitive advantages (Deephouse, 2000; Lange et al., 2011). Second, these dimensions are not easily imitated. They form and develop over time by a complex social interaction process that involves top managers, the firm, stakeholders, the media, and other infomediaries (Deephouse, 2000). Third, the costs of building a reputation are high. A low-quality or unfavorable firm must exert additional effort to attract stakeholders' attention and evoke positive emotional responses. In summary, these dimensions of reputation have the signal properties of being valuable, inimitable, and improving value creation.

Being Known for Quality and Underpricing

Being known for a quality dimension of reputation is formed on the cognitive basis of social influence and information exchange among different stakeholders (Rindova et al., 2005; Rindova & Martins, 2012). Most empirical studies have shown that being known for firm quality is the dominating driving force of reputation-related outcomes. Accordingly, it 'entails expectations about future organizational outputs as held by perceivers who have an interest in those outputs' (Lange et al., 2011: 174). Scholars working from this perspective have shown that evaluators tend to look directly at an organization-specific attribute with a limited information context (Deutsch & Ross, 2003). By contrast, many firms have a limited history operating within the context of an IPO; therefore, investors can rely on track records of specific organizational attributes or characteristics in judging a firm's economic value and potential for growth (Pollock, Rindova, & Maggitti, 2008). Being known for firm quality can serve as a deliberate communication of positive information to convey positive organizational attributes. Thus, we expect that being known for firm quality will be negatively related to IPO underpricing, and we hypothesize that:

Hypothesis 1: Being known for firm quality will be negatively related to IPO underpricing on the first day of trading.

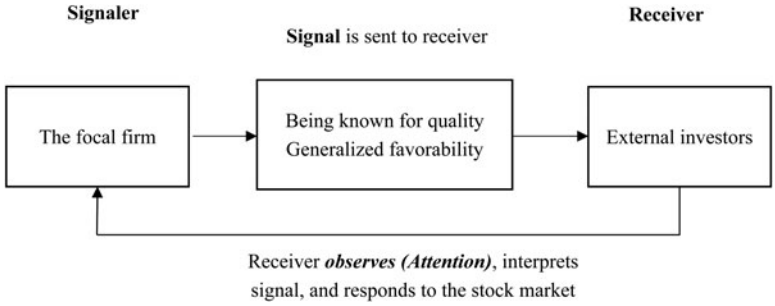

Figure 1. Stock-market signaling model in times of firm IPOs

Generalized Favorability and Underpricing

Firm performance and generalized favorability are related (Deephouse, 2000). Past research has determined that this concept is an important strategic resource that leads to competitive advantage (Deephouse, 2000). Some scholars have even linked value preservation to generalized favorability when a firm encounters a negative event (Wei et al., 2017). Rindova et al. (2005) suggested that generalized favorability reflects the collective recognition of stakeholders on the 'demonstrated ability' of a firm to create value. Thus, the generalized favorability conferred on a firm enhances the expectation of stakeholders that the firm will operate in 'reputation-consistent' ways. Thus, the generalized favorability dimension of corporate reputation can be used as a cognitive shorthand by investors to infer about newly public firms when additional firm-specific knowledge is either unavailable or substantially costly to observe (e.g., Fombrun & Shanley, 1990; Mishina, Block, & Mannor, 2012).

In addition, a firm's generalized favorability is generated from the interactions of such a firm with its stakeholders and from information about the firm's activities and actions circulated among stakeholders. Generalized favorability reflects the overall evaluation of an organization by multiple audiences, thereby serving as a source of 'social proof' that can reduce stakeholder uncertainty (Lange et al., 2011; Rao, Greve & Davis, 2001; Wei et al., 2017). Stakeholders are likely to favor well-liked organizations when making economic choices because such firms are likely to possess 'desirable character traits' (Love & Kraatz, 2009). Thus, generalized favorability can be considered an activating signal of good prospect. We predict that generalized favorability is associated with considerably low underpricing, and we hypothesize that:

Hypothesis 2: Generalized favorability will be negatively related to IPO underpricing on the first day of trading.

Mediator Role of Investor Attention

Management researchers have determined that signaling effectiveness is partially determined by the characteristics of the receiver (Connelly et al., 2011). For example, the signaling process will not work when investors do not observe the

signal. Many listed firms are confronted by the challenges of improving public attention and attracting investors to their stock to improve liquidity and the cost of capital (Bushee & Miller, 2012). Public attention is defined as the extent to which the public vigilantly scans the environment for signals (Gruszczynski, 2013). In business, Davenport and Beck (2001) largely defined attention similarly: as focused mental engagement on a particular item of information. Implicit in the statement that potential investors may purchase corporate stock is the assumption that the public attends to firm information (e.g. Geissler, Zinkhan, & Watson, 2006). Consumers are not generally closely tied to firms and do not typically communicate directly with firm representatives (Carroll, 2010). That is, potential consumers must attend to a firm's new products before they can be expected to purchase them. Therefore, we argue that the signaling role of organizational reputation requires that the investors focus to process information and incorporate organizational reputation into their decisions. In the face of a complex informational environment, processing in detail all the information that individuals perceive is impossible. Attention determines the information that should be processed in priority because individuals have limited cognitive abilities (March & Simon, 1958; Ocasio, 1997; Pollock et al., 2008). Scholars have shown that attention effectively plays an important role in an individual's investment decision-making and have investigated the relationship between stock market activity and investors' limited attention (Mondria, Wu, & Zhang, 2010; Peng & Xiong, 2006). Scholars have suggested that investor attention interacts with certain cognitive biases that affect the manner by which investors react to information. In general, investors' attention is limited by sets of publicly available information. Therefore, organizational reputation is insufficiently incorporated into investors' evaluation and decision-making.

Hypothesis 3a: Investor attention will partially mediate the relationship between being known for quality and IPO underpricing on the first day of trading.

Hypothesis 3b: Investor attention will partially mediate the relationship between generalized favorability and IPO underpricing on the first day of trading.

METHODS

Data

We obtained the identities of the 828 Chinese IPOs firms that issued A-shares for the first time in the period of January 1, 2010 to December 31, 2016, which was a relatively stable period for offerings and had an average level of underpricing (35%). The extreme underpricing magnitude in the Chinese IPO market has elicited considerable attention (Chen, Firth, & Kim, 2004; Mok & Hui, 1998; Su & Fleisher, 1999). Figure 2 shows the annual mean underpricing from 2007 to 2016. The average underpricing is 63.34%. Our sample starts in 2010 because

in May 2009, the China Securities Regulatory Commission issued a new regulation that indicated that IPO pricing was no longer based on regulated PE ratios. We excluded firms that were founded over 15 years before the IPO to focus on the typical IPO firm that over a 'normal' period of time (Cohen & Dean, 2005). The final sample consisted of 564 IPO firms. Deleting 101 firms with missing data left us with the final sample of 463 IPOs. The primary sources of data were the China Stock Market and Accounting Research Database (CSMAR) and the IPO prospectus of each firm.

Dependent Variables

We measured underpricing as the percent change in stock price on the first day of public trading and adjusted for the contemporaneous return in the broader stock market. The data used to calculate underpricing came from two sources, namely, the CSMAR database and the IPO firm prospectuses.

Independent Variables

Being known for quality. Past studies have used the factors identified by Gutterman (1991) as the characteristics used by the investment community to assess IPO firm quality (Pollock & Rindova, 2003; Pollock et al., 2008). We standardized the following firm-specific characteristics by transforming them into Z-scores and combining them into a single firm quality index to measure being known for firm quality. Those firm-specific characteristics include firm sales and net income over the period of one year before the IPO, the number of risk factors included in the offering prospectus, and percentage of an offering represented by managers selling of stock.

Generalized favorability. Our measure of *generalized favorability* is based on Lange et al. (2011), who recommended that '*generalized favorability* might be derived from content analysis measuring the positive, neutral, or negative tones of each firm's press coverage'. Communication research has stated that the public's evaluation of certain issues or subjects closely follow media coverage (Deephouse & Carter, 2005). Newspaper stories are better retrieved than other media sources (DeFleur, Davenport, Cronin & DeFleur, 1992), and prior research has suggested that newspapers should be the best information source for stakeholders to form their impression about a firm (Fiske & Taylor, 1991). Thus, compared with other media, newspaper articles should be the most influential source of firms' reputation.

Thus, we analyzed the degree of positive and negative affective language used in each newspaper article to construct *generalized favorability*. The selected newspapers were from the China Core Newspapers Full-text Database, which retrieves news stories from 593 major newspapers in China, thereby serving as a relatively comprehensive source for determining the attributes of media coverage. We searched and downloaded full texts (entire articles) using a set of keywords (i.e.,

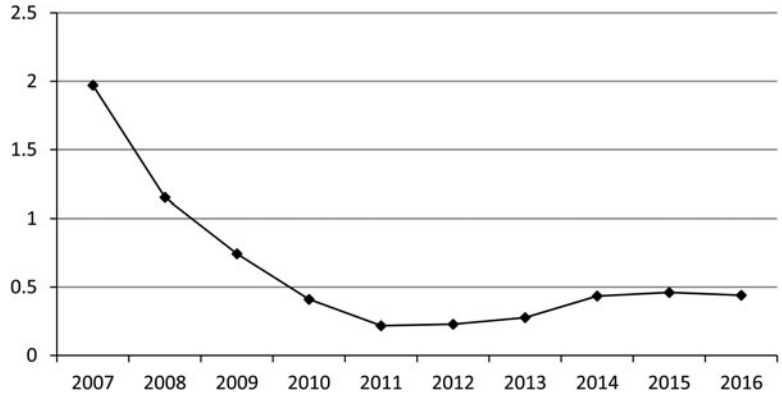

Figure 2. Annual mean underpricing between 2007 to 2016

corporate full name and abbreviated form of the corporate name). We also collected media coverage associated with IPO firms over a one-year period before the IPOs. A total of 7190 articles were obtained using this sampling procedure.

To analyze the degree of positive and negative affective language used in each article, two of the colleagues were instructed to code full-text versions of all sampled articles separately. Following recent research, an article was rated 'favorable' ('unfavorable') if the number of positive (negative) phrases was at least two-thirds (two-thirds or above) of the total number of phrases. Otherwise, the article was rated 'neutral'. The two coders agreed on 84% of the codes and disagreement was resolved by discussion. One of the co-authors of the current research used the same coding scheme on the 358 articles from 2016. The two coders agreed 87% of the time, thereby suggesting high inter-coder reliability (Weber, 1990). Thereafter, we used the Janis–Fadner coefficient of imbalance to estimate the overall rating of media coverage (Deephouse, 2000). The coefficient of *generalized favorability* was calculated using the following formula:

$$\text{Coefficient of } \textit{generalized favorability} = \frac{(P^2 - PN)}{V^2}$$

$$\text{if } P > N; 0 \text{ if } P = N; \text{ and } \frac{(PN - N^2)}{V^2} \text{ if } N > P$$

where P = number of favorable news articles in a given year; N = number of unfavorable news articles in a given year; and V = the total number of news articles about a firm in a given year, including articles that received neutral ratings. The range of this variable is −1 to 1, where −1 is equal to all unfavorable coverage and 1 is equal to all favorable coverage.

Investor attention. Investor attention is typically measured as daily turnover, which is the percentage of the total shares a firm offers that are traded on the first day of public trading (Pollock et al., 2008). Higher turnover represents greater investor

attention to the IPO firm (Pollock & Rindova, 2003; Pollock et al., 2008). The data used to calculate this variable were from the CSMAR database.

Control Variables

Several control variables may have affected the investor behavior and reaction under consideration in the current research. Media attention may influence the evaluations that an IPO firm receives in the other community (Pollock et al., 2008). We used the average daily number of news articles that mentioned the firms' names to control the influence of media attention. The data used to measure the media attention were drawn from all news reports on Baidu News[1] the largest Chinese news search platform, for each IPO firm for the first trading day before the IPO. The natural logarithm transformation of this variable was used to achieve a univariate normal distribution. The characteristics of a firm substantially affect the performance of and demand for the offering. First, we included firm age because it may influence IPO performance (Ritter, 1998) and suggest difficulty in valuing a firm (Carter & Manaster, 1990; Cohen & Dean, 2005). Firm age was measured as the number of years between the incorporation of a firm and the IPO. Second, underwriter reputation was controlled because it can bring resources and send positive signals to investors, e.g., when a high-status underwriter takes a firm public (Carter & Manaster, 1990). Underwriter reputation was a dummy variable coded 1 if an underwriter's market share was one of the top ten underwriters in the period. Third, dummy variables for industries were included to control for systematic differences among companies in various industries for the independent variables. Five industry dummy variables were controlled in the analysis, namely, manufacturing, transportation, wholesale, retail, and finance (Cohen & Dean, 2005).

RESULTS

Table 2 presents the means, standard deviations, and correlations for the variables of interest. Table 3 shows the unstandardized regression coefficients for the ordinary least squares (OLS) regressions that tested the hypotheses. We used the full model to test all the variables for the presence of multicollinearity. The highest variance inflation factor is 1.219; thus, multicollinearity is not a concern. Model 1 estimates the coefficients of our control variables. Models 2 and 3 estimate the main effects of each theorized variable for each organizational reputation dimension hypothesized to influence underpricing. Model 4 contains all of these main effects.

Firm age is positively related to underpricing (0.009, $p < 0.05$), showing that old firms are more likely to discount to reduce risk. This is inconsistent with Ritter (1998)'s assertion that longer track records will outperform younger ones. Underwriter reputation is negatively related to underpricing (−0.066, $p < 0.05$), in line with the findings in the literature that a high-status underwriter can send

Table 2. Descriptive statistics and correlations

Variables	*Mean*	*s.d.*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	
Manufacturing	0.72	0.45											
Transportation	0.01	0.11	−0.184**										
Wholesale	0.02	0.12	−0.199**	−0.014									
Retail	0.01	0.10	−0.167**	−0.012	−0.013								
Finance	0.02	0.14	−0.226**	−0.016	−0.017	−0.015							
Firm age	7.77	3.87	0.08	−0.062	−0.075	0.103*	0.033						
Underwriter reputation	0.39	0.49	0.06	0.027	0.011	−0.04	0.017	0.089					
Media attention [a]	2.11	0.89	−0.074	0.011	0.063	0.138**	0.095*	0.149**	0.074				
Being known for quality	0.02	2.07	−0.249**	0.07	0.083	0.113*	0.262**	−0.019	0.079	0.116*			
Generalized favorability	0.20	0.46	−0.016	−0.006	0.038	−0.038	−0.031	−0.085	−0.074	−0.113*	−0.049		
Investor attention	0.50	0.35	0.056	−0.100*	−0.034	−0.147**	−0.086	−0.253**	−0.034	−0.130**	−0.229**	−0.043	
Underpricing	0.35	0.35	−0.131**	0.125**	0.016	0.028	0.013	0.039	−0.102*	0.012	−0.057	−0.099*	0.158**

Notes: n = 463, *p < 0.05; **p < 0.01,[a] Logarithm.

Table 3. Results of regression analyses predicting underpricing

	Model 1		*Model 2*		*Model 3*		*Model 4*	
Variables	*B*	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*
Constant	0.353***	0.057	0.355***	0.057	0.421***	0.059	0.386***	0.058
Manufacturing	−0.073*	0.039	−0.085**	0.039	−0.09**	0.039	−0.087**	0.039
Transportation	0.105	0.174	0.118	0.174	0.346**	0.147	0.126	0.173
Wholesale	0.022	0.134	0.033	0.133	0.013	0.137	0.043	0.133
Retail	0.003	0.158	0.028	0.159	−0.012	0.162	0.021	0.158
Finance	0.025	0.126	0.077	0.129	−0.034	0.122	0.070	0.128
Firm age	0.009**	0.004	0.008*	0.004	0.005	0.004	0.008*	0.004
Underwriter reputation	−0.066**	0.033	−0.061*	0.033	−0.08***	0.034	−0.066**	0.033
Media attention	−0.001	0.018	0.002	0.018	−0.004	0.019	−0.002	0.018
Being known for quality			−0.015*	0.008			−0.015*	0.008
Generalized favorability					−0.08**	0.035	−0.074**	0.034
R^2	0.028		0.035		0.052		0.044	
R^2 adj	0.011		0.015		0.034		0.023	
F-statistic	1.612		1.793*		2.799***		2.087***	

Notes: n = 463, *p < 0.10; **p < 0.05, ***p < 0.01

signals to the market about the relative quality of an offering (Cohen & Dean, 2005). The coefficient of media attention is negative but not significant (−0.001, $p > 0.1$); this is not consistent with our expectation that the media attention to IPO firms influence its stock performance (Pollock & Rindova, 2003). Among five industries, the coefficient manufacturing is negative and significant (−0.073, $p < 0.1$), which indicates that the particularities of firms in manufacturing industry may potentially impact underpricing.

We regressed the main effects of *being known for quality* and *generalized favorability* on the underpricing to test Hypotheses 1 and 2. Model 2 shows that *being known for quality* is significantly and negatively associated with underpricing (−0.015, $p < 0.1$), thereby supporting Hypothesis 1. We used the unstandardized regression coefficient for *being known for quality* to calculate the effect of increasing *being known for quality* by mean value decomposition. The average value of *being known for quality* has a 0.09% effect on the average underpricing. As predicted in Hypothesis 2, *generalized favorability* is significantly and negatively associated with underpricing (0.08, $p < 0.05$), thereby supporting Hypothesis 2. The average value of *generalized favorability* has a 4.57% effect on the average underpricing. We also observed that the adjusted R^2 values for the models were low; thus, our results need to be evaluated with caution. While low R^2 values clearly present limitations, this level of explanatory power is not special or unusual in organization management and strategy research (see e.g., Muller & Kräussl, 2011 for a recent example).

Mediation Test

To test the mediation hypothesis, we followed the multistep approach suggested by Baron and Kenny (1986). At the first stage, this research established regression models to examine the relationship between the independent variables (*being known for quality* and *generalized favorability*) and the mediator (investor attention). We then regressed *being known for quality* and *generalized favorability* against the dependent variable (underpricing). Finally, we regressed both dimensions and investor attention against underpricing. To indicate significant mediation, all these effects must be significantly related to the association between predictors and dependent variables reduced by the addition of the mediator. To confirm and formally test this mediation effect, we conducted a set of Sobel mediation tests.

As Table 4 suggests, *being known for quality* is significantly negatively related to underpricing (−0.015, $p < 0.10$) and investor attention (−0.037, $p < 0.01$). When we included the mediator as a predictor variable in the model, investor attention became significantly associated with underpricing (0.208, $p < 0.01$) and the relationship between *being known for quality* and underpricing was reduced and became nonsignificant (0.008, $p > 0.10$). The Sobel test confirmed that investor attention mediates the relationship between *being known for quality* and underpricing at the 0.05 level (two-tailed significance test, Sobel $z = -3.162$, $p < 0.05$). Together, these results strongly support H3a.

Table 4. Regression results of the mediating role of investor attention

	DV: Investor attention				*DV: Underpricing*					
	Model 1		*Model 2*		*Model 3*		*Model 4*		*Model 5*	
Variables	*B*	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*
Constant	0.739***	0.056	0.779***	0.057	0.353***	0.057	0.386***	0.058	0.223***	0.068
Manufacturing	0.002	0.038	−0.033	0.038	−0.073*	0.039	−0.087**	0.039	−0.08**	0.038
Transportation	−0.363**	0.141	−0.251	0.169	0.105	0.174	0.126	0.173	0.178	0.170
Wholesale	−0.149	0.132	−0.119	0.129	0.022	0.134	0.043	0.133	0.068	0.130
Retail	−0.399**	0.156	−0.352**	0.154	0.003	0.158	0.021	0.158	0.094	0.156
Finance	−0.195*	0.117	−0.077	0.125	0.025	0.126	0.070	0.128	0.086	0.126
Firm age	−0.022***	0.004	−0.023***	0.004	0.009**	0.004	0.008*	0.004	0.013***	0.004
Underwriter reputation	−0.005	0.032	0.000	0.032	−0.066**	0.033	−0.066**	0.033	−0.066**	0.032
Media attention	−0.026	0.018	−0.022	0.018	−0.001	0.018	−0.002	0.018	0.003	0.018
Being known for quality			−0.037***	0.008			−0.015*	0.008	−0.008	0.008
Generalized favorability			−0.068***	0.033			−0.074**	0.034	−0.060*	0.034
Investor attention									0.208***	0.048
R^2	0.107		0.150		0.028		0.044		0.084	
R^2 adj	0.091		0.131		0.011		0.023		0.061	
F-statistic	6.824***		7.912***		1.612		2.087***		3.715***	

Notes: n = 463, *p < 0.10; **p < 0.05, ***p < 0.01

As Table 4 also suggests, *generalized favorability* is significantly negatively related to underpricing (−0.074, $p < 0.05$) and investor attention (−0.068, $p < 0.01$). When we included the mediator as a predictor variable in the model, investor attention became significantly associated with underpricing (0.208, $p < 0.01$) and the relationship between *generalized favorability* and underpricing decreased and became less significant than it was without the mediator (0.060, $p < 0.10$). The Sobel test did not confirm the results (two-tailed significance test, Sobel z = −1.861, $p > 0.05$).

Robustness Check

Endogeneity may have affected our analyses because firm-specific factors other than those covered by this research and unobserved capabilities may underlie investors' choices about a firm. The result of the analyses that used corporate reputation to predict investor decision may be biased because of the unlikeliness that all firms have an equivalent probability of receiving media coverage. Therefore, we used two-stage Heckman correction models to correct selection bias (Heckman, 1979). In the first stage of the Heckman estimation, we formulated a probit regression to predict the probability that an organization would receive media coverage. In the second stage, we corrected self-selection by incorporating a transformation of these predicted probabilities as an additional explanatory variable in the OLS regression analyses. Moreover, we included the firm age, underwriter reputation, and industry dummy variables in the probit model. These factors may affect the probability that an organization receives media coverage. The inverse Mills ratio was not significant, and our results remain substantively unchanged.

DISCUSSION

Information asymmetry between owners and IPO investors has elicited the concern of researchers in the organizational reputation management literature (Carter & Manaster, 1990; Pollock & Rindova, 2003). However, the different dimensions of reputation in affecting how potential investors react to their IPOs have not been investigated. We analyzed 463 initial public offerings in China from the period of 2010 to 2016 to test the relationships between the two dimensions of organizational reputation, investor attention, and stock market reactions to firms' IPO. Although the literature has provided certain evidence for the existence of a relationship between organizational reputation and financial performance (e.g., Deephouse, 2000; Pfarrer, Pollock, & Rindova, 2010; Wei et al., 2017), our theory and empirical results suggest that different dimensions of reputation are important in the IPO process. We determined that the *generalized favorability* and *being known for quality* dimensions of corporate reputation are associated with underpricing. From a signaling perspective, corporate reputations that contain different stakeholders' perceptions affect investor choices of IPO firms in various manners.

We argued that the *generalized favorability* and *being known for quality* dimensions of corporate reputation affect investors' evaluation and understanding of an IPO firm.

In response to the call for additional research on the relationship between owner and investor in the context of IPOs (Cohen & Dean, 2005), we suggest that corporations' *being known for quality* and *generalized favorability* can send positive signals of firm value to potential investors. Our finding suggests the roles of *being known for quality* and *generalized favorability* in signaling firm value, which reduce information asymmetry between firms and investors. Cohen and Dean (2005: 688) argued that 'In the uncertain context of an IPO, information asymmetry between current owners and potential investors creates the potential for owner opportunism and the need for convincing signals of firm value'. The '*being known for quality*' and '*generalized favorability*' dimensions of reputation can serve as important signals because investors perceive corporate overall favorability as a reliable indicator of firm value. Our results suggest that the generalized favorability dimension of corporate reputation has a negative relationship with underpricing. Thus, our study also contributes to recent research that has examined the influence of different dimensions of reputation on firm-level outcomes.

In addition, the signaling theory perspective on organizational reputation holds that organizational reputation may benefit listed firms financially because investors may have high expectations of reputable firms. This research explores a previously unexplored premise of this argument – that the signal role of organizational reputation should only be expected to accrue to the extent that investors pay attention to them. In this case, the power of organizational reputation in explaining underpricing is due to the extent that these reputation signals attract stakeholder attention. Our analysis supports this view and thereby demonstrates that investor attention mediates the relationship between *being known for quality* and IPO underpricing.

Several limitations of the present study provide additional opportunities for developing future research. First, we analyzed only investor choices in the aggregate (i.e., individual investors notice similar types of information and react in a similar manner toward such information, thereby arriving at a similar conclusion.). Thus, we restricted our theorizing to individual socio-cognitive processes and did not study the different types of investors' choices and behaviors (e.g., private individuals versus institutional investors). Given the difference in the relative levels of expertise and risk preference, various types of individuals or organizations may interpret corporate reputation in various ways. Future research can systematically investigate this issue to identify the role that investor characteristics or attributes play in the IPO market. Second, we selected the first trading day to limit the possibility that exogenous or endogenous events with effective signal potential change the investors' attention and evaluation. However, a different pattern of results may occur under different post-IPO period lengths. We call for a systematic investigation of the relative influence of corporate reputation over considerably long periods in future research. Finally, although we attempted to control a large number of contextual and firm-level variables, other factors that influence the link between corporate reputation and underpricing may emerge.

NOTES

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[1] Baidu News is the largest Chinese news platform and is known among netizens for its timely and widespread coverage of important issues. Baidu News' sources include more than 500 domestic news media agencies.

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