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The impact of prestigious attorneys on IPO withdrawal in the global primary market

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Abstract

This study aims to determine whether the involvement of prestigious attorneys in issuing companies affects withdrawals in the initial public offering (IPO) market. There is little evidence on how the involvement of famous lawyers affects IPO withdrawal. The study considers a large dataset consisting of 24,312 IPOs that were either successful or withdrawn from 22 distinct IPO marketplaces between January 1995 and December 2019. We find that IPO issuers may benefit from engaging with reputed attorneys by leveraging exceptional legal or negotiating abilities as quality certification signals to reduce IPO investors' ex-ante uncertainty. Here, the objective is to protect their IPOs from withdrawal of at least by 22%. Multiple robustness tests validate the reliability of the results of this study. These findings have significant implications for researchers, legislators, investors, and issuers.

Keywords: IPO withdrawal risk, Reputation, Attorneys, Certification, Information asymmetry, Ex-ante uncertainty

Introduction

The initial public offerings (IPOs) are widely used methods for businesses to raise funds from the stock market. In finance research, the topics on firms' failure to secure publicly disclosed capital and their choice to withdraw from deals are less-explored. Investigating a company's decision to remove its IPO listing has received little attention worldwide (Boeh and Southam 2011; Reiff and Tykvová 2021). The withdrawal decision is expensive for stakeholders because it involves underwriting, accounting, and legal expenses, and is seldom irrevocable. Research demonstrates that an IPO withdrawal influences the probability and offer price of a follow-on-offering (FPO) (Dunbar 1998; Dunbar and Foerster 2008; Helbing 2019). The businesses that remove their offerings seldom reissue in the future. An IPO withdrawal may reduce a firm's cash flow, funding for growth plans, and valuations (Busaba et al. 2001; Qing 2011).

Most companies that conduct an IPO hire independent attorneys to: First, act as a primary intermediary between the IPO business and prospective investors; and second, provide advice on matters about securities regulation before the actual listing takes place (Bates et al. 2018; Moran and Pandes 2019; Jamaani and Alidarous 2022). Depending on the caliber of the attorneys involved, the quality of legal representation given to

companies considering an IPO may play a role in the decision to abandon the offering (Chaserant and Harnay 2015). This is because well-known lawyers are more expensive to retain for rigorous due diligence, stakeholders should find instructive IPO prospectuses vetted by well-known attorneys (Fernando et al. 2015). These attorneys ensure that IPO enterprises comply with disclosure standards and reduce their clients' exposure to shareholder and government litigation. Consequently, there is a greater likelihood of a company being successfully listed (Okamoto 1995; Moran and Pandes 2019). Irrespective of the importance and prominence of attorneys, research on their effects on the withdrawal of IPOs from primary markets worldwide is scarce.

The IPO research emphasizes the role of prestigious underwriting banks in influencing the likelihood of IPO withdrawal (Barondes et al. 2007; Helbing et al. 2019; Reiff and Tykvová 2021). The current research on IPO withdrawals is clustered in developed IPO markets and reveals fragmented findings that are difficult to generalize across developed markets. Boeh and Southam (2011) use 1655 successful and withdrawn IPOs listed in the United States (US) market between 1999 and 2004 to argue that prestigious underwriters play a vital role in the withdrawal of IPO businesses to safeguard their image and reputation. However, IPOs prepared by non-prestigious underwriters can also be withdrawn because of a lack of reputational capital. Conversely, Qing (2011) uses 2284 completed and 594 withdrawn IPOs from 1996 to 2005 in the US market and does not find any relationship between prestigious underwriters and IPO withdrawal in that country's IPO market. Helbing (2019) focuses on developed markets using 2474 completed and 334 withdrawn IPOs from 2001 to 2015 in the United Kingdom (UK), France, Germany, Denmark, Italy, Norway, Sweden, and Spain. The author confirms the lack of empirical research on the relationship between prestigious underwriters and the probability of IPO withdrawal. In contrast to research on IPO withdrawals in the US market, the reputation and market share of underwriting banks seem to be irrelevant in the European market. Klein et al. (2016) assert that corporations select underwriters based on prior connections rather than reputation. Owing to the varying operations of banks worldwide, the certification role of underwriters in the US does not apply to Italy, Scandinavia, Germany, or the UK.

The observed differences reported in previous IPO withdrawal research in advanced economies might be owing to variability in legal systems and cultural virtues. For instance, Lowry and Shu (2002) and Lin et al. (2013) demonstrate that, in nations with a small (large) power distance, such as the US (France), the lawsuit risk is greater (smaller). In terms of power distance, Hofstede (2011) assigns the US (France) a score of 40 (68) out of 100. Tsakumis (2007) empirically demonstrate that a portion of the vast variation in financial reporting quality between Greece and the US is attributable to cultural and litigation risk disparities. Hofstede (2011) rates Greece 60 out of 100 for power distance. Hence, an internationally exhaustive analysis considering 24,312 successful and withdrawn IPOs from 22 countries with various legal and cultural backgrounds provides more consistent findings and conclusions on the role of reputable law firms in the primary market.

Consequently, there is dearth of research on the impact of prestigious attorneys on the probability of IPO withdrawal in the international IPO market. This study seeks to determine whether prestigious attorneys can mitigate legal risks and certify the quality

of IPO companies to reduce ex-ante uncertainty among IPO parties and prevent corporations from withdrawing. This study is closely comparable to the distinguished work of Moran and Pandes (2019), who report a correlation between prestigious attorneys and reduced IPO underpricing in the US IPO market. However, the present study is unique because to the best of our knowledge, this study is the first to conduct an internationally exhaustive analysis that utilizes 24,312 successful and withdrawn IPOs in 22 countries from January 1995 to December 2019 to examine the impact of prestigious attorneys on IPO withdrawals. This study is conducted based on the existing knowledge of IPO withdrawal research, such as Busaba et al. (2001), Helbing et al. (2019), and Reiff and Tykvová (2021), who do not realize the possible relationship between prestigious attorneys and IPO withdrawal.

Our research reveals that prominent attorneys ensure that the information included in IPO prospectuses is devoid of significant mistakes and faults, which, in turn, leads to investors viewing the material favorably. Therefore, the information provided to investors in an IPO is of superior quality because of the prestigious attorneys selected by the IPO companies. Highly qualified attorneys retained by issuing companies may act as signs of trustworthiness in conveying issuers' confidential information to investors participating in IPOs. This minimizes ex-ante investor misunderstandings regarding the legal bindings presented in public IPO filings, which, in turn, reduces the IPO withdrawal probability in the worldwide primary market by up to 22%. Our findings are convincing even when we consider variations in developed versus developing market economies, formal and informal institutional quality, additional company-level specifications, and advanced econometric aspects. To the best of our knowledge, this is the first study to empirically investigate the role of reputable lawyers in the withdrawal risk of IPO enterprises in international IPO markets.

Our study has some significant implications for IPO issuers, investors, scholars, and policymakers. Recruiting prominent lawyers before an IPO provides a certification that allays ex-ante concerns among IPO investors, which, in turn, reduces withdrawal risk. Conversely, investors in IPOs may obtain knowledge on refraining from buying shares in IPOs of companies that use non-preeminent attorneys. If investors wish to invest their funds for a certain period in an IPO firm that is likely to be withdrawn from the listing, may result in losses. To the best of our knowledge, this is the first study to identify credible evidence of a substantial negative link between the participation of prominent attorneys and decreased withdrawal risk for IPO businesses. Our findings on employing prestigious lawyers when processing IPO filings, may be useful for regulatory agencies supervising the stock market. In the IPO issuing, prominent lawyers may assist in curtailing the risk of withdrawal, which may encourage new private placement owners to list their firms on the stock market, subsequently contributing to the expansion of the economic system.

The remainder of this paper is organized as follows. Section "Brief literature review" provides a summary of the relevant literature. Section "A brief theoretical review and hypothesis development" addresses the major hypotheses and theories. Section "Data and methodology" describes the data and methods used in this study. Section "Empirical results" presents the empirical data and discussion. Sections "Robustness tests" and "Conclusion" present the robustness tests and conclusion, respectively.

Brief literature review

During the early phases of a business's IPO listing process,[1] the relevant IPO company employs a lawyer and an underwriting agent to disclose the necessary information that drives the pricing and advertising of the IPO's shares (Beatty and Welch 1996; Barondes et al. 2007; Moran and Pandes 2019). More emphasis is placed on the underwriting banks' involvement in the IPO process, including pricing and withdrawal decisions, whereas lawyers receive less coverage (Beatty and Ritter 1986; Fang 2005; Barondes et al. 2007; Liu and Ritter 2011; Razafindrambinina and Kwan 2013; Jamaani and Ahmed 2020).

One school of thought contends that underwriters significantly influence the underpricing of IPO firms. For instance, this research contends that underwriting agencies collaborate closely with issuers by delivering critical services during the IPO phase, such as ensuring conformity with securities listings and regulatory requirements, undertaking an unbiased valuation of the IPO company, and advertising the listing to retail and institutional investors (Kirkulak and Davis 2005; Jones and Swaleheen 2010; Jamaani and Ahmed 2022). The relationship between issuers and underwriters is crucial because underwriting is a recurring activity with little rivalry (Fang 2005). Recognizing variances in underwriting quality, research has discovered that prominent investment banks, when compared to their non-prestigious counterparts, often have experienced underwriters in effectively preparing and marketing businesses to go public (Carter and Manaster 1990; Carter et al. 1998; Jamaani and Ahmed 2021). The reliability of these underwriting businesses is a measure of their prospective worth to new investors (Beatty and Ritter 1986; Jamaani and Alidarous 2019).

Typically, a trustworthy issuer hires notable underwriters to communicate that the offer price accurately represents future company success, because prominent underwriters have better valuation expertise and reputational capital at risk (Booth and Smith 1986; Liu and Ritter 2011). Underwriters' reputations improve when they effectively execute and price IPOs, however, suffer when they withdraw offers or fail to disclose relevant information (Dunbar 2000; Helbing 2019). This judgment cannot be made until the IPO process has commenced, irrespective of the fact that a prominent underwriter should be able to discriminate between "good" and "poor" offers (Jamaani and Ahmed 2021, 2022). Based on this, the reputation of underwriting organizations relies heavily on their trustworthiness in the primary market, which determines the underwriter's future business and, ultimately the underwriter's business viability (Razafindrambinina and Kwan 2013; Sundarasen et al. 2018).

Another line of investigation examines the relationship between IPO withdrawals and the reputations of underwriting banks. According to Boeh and Southam (2011) and Helbing (2019), reputed underwriters can play a major role in withdrawing from IPO businesses to maintain reputational capital. However, underwriters with inferior market reputations can withdraw their offerings owing to the dearth of reputation capital in the US. Dunbar (1998), Dunbar and Foerster (2008), and Qing (2011) indicate the absence of concrete evidence on the relationship between IPO withdrawals and notable

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[1] For further reading about the listing and withdrawal process of IPO firms, please see Busaba et al. (2001), Johan (2010), and Fan and Yamada (2020).

underwriters in the US primary market. While IPO firms engage underwriters and lawyers to guarantee successful listings, they have distinct functions. Underwriters work closely with the owners of IPO companies to guarantee adherence to listing rules, appraise the IPO business independently, and promote sales to retail and institutional investors (Jamaani and Alidarous 2019, 2021). Underwriting quality measures corporate prospects and is valued by IPO investors (Beatty and Ritter 1986). Thus, using reputable underwriting banks reduces the ex-ante uncertainty associated with the genuine pricing of the IPO business, providing IPO investors with a certification signal that reduces information asymmetry (Liu and Ritter 2011). This eventually ensures a successful listing. Conversely, an attorney's duty starts by reviewing the IPO firm's business operations (Barondes et al. 2007). Attorneys compile and evaluate IPO prospectus materials, thus lowering legal liabilities (Moran and Pandes 2019).

Despite the involvement of underwriters and lawyers in the IPO market, little is known about their role in the process. An attorney's role begins by conducting a thorough due diligence review of the IPO firm's business procedures (Barondes et al. 2007; Jamaani and Alidarous 2022). Attorneys gather and validate information for the IPO prospectus, reducing legal liability associated with severely misleading statements and flaws (Schneider et al. 1981; Moran and Pandes 2019). A typical legal evaluation frequently involves a review of potentially hazardous pledging agreements, associated-party transactions, cross-default provisions, and third-party dissolution rights (McClane 2015). Consequently, attorneys clarify and verify the accuracy of the material for IPO prospectuses, assisting investors in identifying the uncertainty and appropriateness of investments (Bates et al. 2018; Jamaani and Alidarous 2022).

Research reveals that attorneys differ in the level of service quality they deliver to customers; therefore, considerable heterogeneity in the quality of legal services supplied to IPO businesses may produce unforeseen outcomes for IPO corporations (Krishnan and Masulis 2013; McClane 2015). These findings demonstrate that prominent attorneys perform more thorough due diligence than less-famous ones (Barondes et al. 2007; Bielen and Marneffe 2018; Ipsen 2020). Moran and Pandes (2019) consider that respectable attorneys engage extensively with IPO companies to guarantee that investors analyze return and risk profiles, and must have a stronger influence on the market price of IPO corporations' shares in the short term. Prominent attorneys can add value to IPO enterprises by using outstanding legal or negotiation skills as a quality certification signal, which can ease IPO investors' ex- ante uncertainty resulting from investment concerns (Okamoto 1995; Krishnan and Masulis 2013; Jamaani and Alidarous 2022).

We have undertaken this study as the empirical evidence on the effect of prominent attorneys on IPO withdrawal is scarce. The fragmentary empirical evidence links the recruitment of prestigious attorneys to IPO underpricing (Beatty and Welch 1996; Bates et al. 2018; Moran and Pandes 2019; Jamaani and Alidarous 2022). The general finding is that the involvement of renowned lawyers in an IPO prospectus may signal business quality. This reduces information asymmetry among IPO investors and issuers, thus reducing investors' appetite for underpricing to compensate for IPO prospectus ambiguities. Bates et al. (2018) and Moran and Pandes (2019) identify a relationship between famous lawyers and lower US IPO underpricing. Jamaani and Alidarous (2022) use data on 6869 IPOs traded in 10 emerging economies from 1995 to 2019 and show

that prestigious attorneys hired by issuing companies serve as a certification signal of trustworthiness in genuinely communicating IPO owners' private information to investors. The researchers suggest that the certification signal provided by prominent lawyers alone minimizes investors' ex-ante uncertainty about contractual binding in IPO filings, lowering IPO underpricing in underdeveloped economies. They emphasize that prominent legal firms should undertake more rigorous diligence evaluations. According to the authors, respectable lawyers work closely with IPO issuers to help investors assess both the risks and benefits. Thus, respected attorneys influence the stock prices of IPO businesses, at least in the short term. Conversely, Beatty and Welch (1996) reveal that there is no relationship between IPO underpricing and famous lawyers' involvement in the US IPO market. Conversely, Barondes et al. (2007) use US market data spanning 1986 to 2001 to show that prominent lawyers underpriced IPO enterprises because of litigation risks.

A brief theoretical review and hypothesis development

In the pre-IPO period, investors analyze firms before deciding to invest in them. Owing to limited information and the hazards of adverse selection (hidden information) and moral hazard (concealed action), pre-IPO investors find it challenging to judge an offering's fair market value (Beatty and Ritter 1986; Liu and Ritter 2011; Huang and Zhang 2020). Nonetheless, IPO firms are obligated by legislation to disclose a list of requirements in the application; however, the legislation cannot enforce the thorough disclosure of all operationally relevant information (Aggarwal 2000; Hwang et al. 2021). Furthermore, the law cannot enforce comprehensive disclosures for operational reasons related to IPO firms, which may hinder their operational advantages (Cohen and Dean 2005). Therefore, IPOs may choose to withhold certain offerings. This results in information asymmetry between potential IPO investors and company owners. In a situation where asymmetric information is pronounced, prospective investors may find themselves incapable of judging the offering's value and may refuse issuer pricing (Helbing et al. 2019). Higher information asymmetry between investors and issuers is expected to raise ex-ante uncertainty about company value and agency costs (Busaba et al. 2001; Reiff and Tykvová 2021). The difficulty of issuers and investors agreeing on listing prices increases the risk of IPO withdrawal (Helbing 2019).

This study employs a theoretical construct that covers IPO withdrawal owing to information asymmetries between investors and IPO companies, as well as the function of respected attorneys in the IPO process (Busaba et al. 2001; Dunbar and Foerster 2008; Qing 2011; Helbing 2019; Helbing et al. 2019; Moran and Pandes 2019; Blomkvist et al. 2020; Reiff and Tykvová 2021; Jamaani and Alidarous 2022). Booth and Smith (1986) present a certification theory to solve IPO informational asymmetries in the IPO market. These authors propose that IPO companies should verify the quality they claim to have by using reliable intermediates, such as prominent attorneys, to evaluate prospectus material to minimize information asymmetry. Beatty and Ritter (1986) introduce the ex-ante uncertainty theory, highlighting the significance of trusted intermediaries such as famous attorneys in reducing informational asymmetries between prospective IPO investors and IPO corporations. Researchers state that substantial ex-ante uncertainty concerning IPO firms indicates

that investors have reservations about prospectus reporting quality. In such cases, investors are concerned about their future investments. The investors of IPOs, in turn, demand a considerable discount as reasonable compensation. By synthesizing the above two theories, it can be assumed that IPO business owners would use respectable intermediaries such as attorneys to validate the integrity of prospectus material, pleasing IPO investors. Consequently, the lack of information between IPO investors and issuers reduces, thus reducing the risk of IPO withdrawal.

Research indicates that engaging renowned attorneys may help IPO issuers communicate additional information to IPO investors that are not found in the IPO brochure, subsequently affecting offer prices (Okamoto 1995; Krishnan and Masulis 2013; Bates et al. 2018). Reputed lawyers provide value to IPO firms and reduce IPO underpricing (Bates et al. 2018; Moran and Pandes 2019). IPO corporations view underpricing as a risk factor for wealth loss. Similarly, an IPO withdrawal may impact a company's cash flow, expansion funds, and potential firm value (Helbing 2019; Helbing et al. 2019). Prominent attorneys demand much more expertise and high-quality work; therefore, the IPO documentation they create for IPO businesses contains more helpful information for investors (Okamoto 1995; Jamaani and Alidarous 2022). We propose that reputed attorneys hired by IPO businesses can serve as quality certification indicators for IPO investors, enabling them to obtain trustworthy information with certainty. The IPO investors' ex-ante uncertainty may decline if prospectuses are reviewed by recognized attorneys. This might reduce IPO withdrawals. Based on this assumption, we formulate the following hypothesis:

H1   The IPOs filed by prestigious attorneys have lower withdrawal risks.

Data and methodology

This study considers an internationally comprehensive dataset of 24,312 successful and withdrawn IPOs from 22 heterogeneous countries with different legal systems and cultural differences from January 1995 to December 2019. We obtain IPOs prospectuses from various private and public sources, including Bloomberg, Thomson Reuters, stock exchanges, and corporate websites. We exclude real estate investment trusts (REITs), American Depositary Receipts (ADRs), closed-end or mutual funds, special-purpose companies, and rights issues following the IPO literature (Butler et al. 2014; Helbing et al. 2019; Moran and Pandes 2019; Jamaani and Ahmed 2020, 2021).

We use a probit model using version 15 of the Stata Statistical Software, in which the outcome variable is a binary variable and y represents IPO withdrawal, which signifies the occurrence of an IPO withdrawal and has a value of 1 if the IPO is withdrawn and 0 otherwise (Busaba et al. 2001; Helbing et al. 2019). The fundamental model is defined as follows:

$$P = Pr\left(y_j = 1/x_j\right) = x'\beta \tag{1}$$

where x_j represents the set of explanatory variables in Table 1 and F($x'\beta$)=$x'\beta$. F($x'\beta$) denotes the cumulative distribution function of the standard normal distribution.

Table 1 Definitions of variables

Variables	Description	Source of data
Dependent variable		
Withdrawn IPOs	It has a value of 1 if the IPO is withdrawn and 0 otherwise	Bloomberg New Issue Database (BNID)
Main variable		
Prestigious attorneys	This is a binary variable created through categorization. If the IPO company's attorney is among the top 100 worldwide registered law firms by market share in the BNID, this variable is one. Otherwise, it is zero	BNID
IPO firm-specific variables		
IPO capital sold	It refers to the percentage of outstanding shares offered by IPO owners at the time of being offered to new investors	BNID
Technology firm	It is a binary variable that equals one if the issuing corporation is categorized as a technology[1] company; otherwise, it equals zero	BNID
Integer offer price	A categorical variable, it has a value of one if the offer price of IPO is an integer and a value of zero otherwise	BNID
Above range offer price	It is a categorical variable equal to a value of one if the IPO's offering amount rises above the underwriter's pricing range and zero otherwise	BNID
Size of offering	It is the total amount of payment received by each IPO company, calculated by multiplying the number of stocks offered by the offer price in US dollars	BNID
Ratio of institutional participation	It is the proportion of institutional investors to total IPO participants, which includes both institutional and retail investors	BNID
IPO market-specific variables		
Hot IPO market	It is a dichotomous variable with a value of one if this IPO is listed in a year during which the total number of listings exceeds the average number of listings; otherwise, it has a value of 0	The World Bank[2] (TWB)
Volume of IPO listing	It calculates the current number of IPOs listed in each country and year	TWB
IPO discount	It is the percentage of the offer price to the IPO's first day closing price	BNID
IPO firm accounting ratio variables		
Financial leverage	It is the company's equity-to-liabilities ratio. It shows the company's offering leverage	BNID
Profitability	It is the ratio of the total dividends distributed to shareholders to net income at the time of the offering	BNID
Performance	It is the initial public offering common equity rate of return	BNID
IPO firm corporate governance variable		
Firm corporate governance	It is the total number of independent directors registered at the time of offering	BNID
Macroeconomic variables		
Inflows of foreign direct investment	It is a time series index from 1995 to 2019 that shows net investment inflows as a proportion of the GDP	TWD

Table 1 (continued)

Variables	Description	Source of data
Interest rate	It covers the period 1995 through to 2019 and interest charges on government borrowing to local and foreign entities, such as long-term mortgages, securities, and other treasury bonds	TWD
Growth of gross domestic product	It is a 1995–2019 time series index that shows GDP per capita growth	TWD
Inflation rate	It tracks yearly consumer price inflation from 1995 to 2019	TWD
Legal origin variables		
English common law origin	It is a categorical variable that equals one if the IPO is offered in an English common law jurisdiction and zero otherwise. Australia, South Africa, the United Kingdom, and the United States are nations that inherited the English common law tradition	Lin et al. (2013)
French civil law origin	It is a categorical variable with a value of 1 if the IPO is being issued in a French civil law jurisdiction and 0 otherwise. France, Brazil, Greece, Italy, Mexico, and Russia are among the nations which inherited the civil law tradition	Lin et al. (2013)
Dummies	It is a dichotomous variable that compensates for the impacts of year, country, and industry effects	Self-constructed variable

[1] We employ Jamaani and Ahmed's (2021) categorization approach to classify hardware and software technology, specialized chemicals, sophisticated electronics, hospital equipment, telecommunication technologies, pharmaceuticals, and biotech enterprises

[2] TWD refers to the data obtained from The World Bank (2023) website. The web-based data platform provides an extensive collection of accessible datasets, including databases, reports, and other materials from various countries

$$F(x'\beta) = \Phi(x'\beta) = \int_{-\infty}^{x'\beta} \Phi(Z)dz \qquad (2)$$

The predicted probabilities range between 1 and 0. Following Qing (2011), Helbing (2019), and Reiff and Tykvová (2021), we correct for various firm- and country-level variables. The definitions of all variables and measurement units are listed in Table 1. The primary independent variable is prestigious attorneys, which is a categorical variable produced by employing a time-invariant classification technique. We follow the IPO literature, including Loughran and Ritter (2004), Corwin and Schultz (2005), Yung and Zender (2010), and Jamaani and Ahmed (2021), to replicate how the time-invariant variable of the reputable underwriter is constructed as a binary variable established using a ranking mechanism developed by Carter and Manaster (1990) in the US market. Neupane and Thapa (2013), Jamaani and Ahmed (2021), and Jamaani and Alidarous (2022) implement a globalized approach to the reputable underwriter ranking methodology for time-invariant variables to account for variations from country to country.

In this study, the authors assign a binary value of either one or zero to underwriting companies based on their rank in the Bloomberg New Issue Database (BNID). Particularly, a value of one is given to companies that are among the top 100 internationally registered underwriters in terms of total market share, while a value of

zero is assigned to those that do not meet this criterion. Following prior IPO research including Loughran and Ritter (2004), Corwin and Schultz (2005), Yung and Zender (2010), and Jamaani and Ahmed (2021), we devise a time-variant ranking system for esteemed law firms that accounts for variations among firms across countries. This ranking methodology incorporates a binary variable that assigns a value of one if the legal counsel representing the IPO company is affiliated with one of the top 100 global law firms, as determined by the market share in the BNID dataset from 1995 to 2019. Conversely, a value of zero is assigned if legal counsel does not meet this criterion. Consequently, following Neupane and Thapa (2013), Jamaani and Ahmed (2021), and Jamaani and Alidarous (2022), a reputable law firm is assigned a value of one, whereas non-prestigious attorneys are assigned a value of zero.

The BNID provides a league table for legal adviser firms that work on IPOs, ranking law firms based on the number and value of IPOs they advise on. This league table is known as the Bloomberg Legal Adviser League (BLAL) table for IPOs in every country (Bloomberg 2022). The BLAL uses quantitative metrics, including the number of deals, average deal size, and market share of each legal firm, sourced from Bloomberg's financial data terminals. Legal firms, IPO issuers, investors, and other market stakeholders extensively employ these metrics to assess the efficacy and competencies of IPO law firms. Despite the regular updates of the BLAL for IPOs, which offer a ranking of leading IPO law firms based on their participation in IPOs, both in the US and worldwide, we transform it from a time-varying to a time-in-varying method to establish a consistent ranking mechanism as IPO research begins (Carter and Manaster 1990; Neupane and Thapa 2013; Jamaani and Ahmed 2020, 2021; Jamaani and Alidarous 2022).

Using a time-invariant version of the BLAL table for IPOs has several advantages. One of its primary advantages is, it solves the problem of data unavailability (Simwaka et al. 2013). Limitations in the data availability for specific years or periods may exist in certain cases. We argue that a time-invariant ranking can help mitigate these limitations by providing a more complete picture of a law firm's performance over a longer period. Table 2 provides the number of withdrawn IPOs for each country in the sample from 1995 to 2019. The data presented in the table indicate that IPOs are not withdrawn annually in several countries, thereby posing a challenge in monitoring the annual performance of reputable and non-reputable law firms involved in withdrawn IPOs. Second, in comparison to peers, a time-invariant ranking can provide a useful benchmark for comparing a firm's performance with that of its peers (Feeny and Rogers 2003). We contend that by using a ranking based on a consistent set of criteria over a longer period, it is possible to make more meaningful comparisons between law firms. Third, time-variant rankings can be subject to certain biases, such as overemphasizing recent performance or assigning undue weight to certain types of deals or clients (Kang and Heshmati 2008). Thus, we assert that a time-invariant ranking can help mitigate these biases by providing a more balanced and objective view of a law firm's performance over a longer period.

Fourth, consistency in performance: A time-invariant ranking in Bloomberg's league table for IPOs law firms helps identify law firms that have consistently done well over a long period (Ali and Nakosteen 2005). This provides a more accurate measure of a law firm's overall performance in IPOs, rather than just looking at how well they perform in a single year. We believe this is particularly important in the legal industry, where

Table 2 Distribution of each Country's 1995–2019 IPO withdrawals

Country	Total listed IPOs	Total withdrawn IPOs	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Australia	1957	235	0	0	0	0	0	3	10	8	4	18	16	14	16
Brazil	185	60	0	0	0	0	0	0	0	0	0	0	0	1	6
Canada	2155	152	0	0	0	0	0	4	6	7	1	6	10	12	13
China	2817	593	0	0	0	1	2	3	6	1	2	11	23	27	23
Denmark	80	8	0	1	1	1	1	1	1	1	1	0	0	0	0
France	761	54	0	0	0	0	1	6	12	6	1	2	2	6	3
Germany	832	76	0	0	0	1	4	12	13	7	4	4	4	4	4
Greece	323	72	0	0	0	0	0	0	39	14	2	2	2	1	5
India	1027	175	0	0	0	0	0	3	10	3	1	2	9	15	16
Indonesia	313	19	0	0	0	0	0	0	0	0	0	1	2	1	1
Italy	344	81	0	0	0	0	0	6	10	11	4	2	3	4	3
Japan	1992	41	0	0	0	0	0	5	5	3	2	3	2	4	2
Mexico	56	7	0	0	0	0	0	0	0	0	0	1	1	1	1
Poland	790	79	0	0	0	0	0	1	4	1	1	2	1	2	14
Russia	93	40	0	0	0	0	0	0	1	7	2	5	1	10	10
Saudi Arabia	84	8	0	0	0	0	0	0	0	0	0	0	0	3	1
South Africa	276	11	0	0	0	0	0	0	2	2	1	4	1	1	0
South Korea	1275	51	0	0	0	0	0	0	0	0	1	1	1	1	0
Sweden	287	29	0	0	0	0	1	3	2	4	1	1	3	2	2
Turkey	229	70	0	0	0	0	0	1	11	1	2	9	3	8	5
United Kingdom	2061	206	0	0	0	0	1	19	30	10	8	8	7	14	17
United States	6375	1466	1	0	3	25	86	140	128	62	30	41	40	51	48
Total	24,312	3533	1	1	4	28	96	207	290	148	68	123	131	182	190

Table 2 (continued)

Country	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Australia	20	7	8	10	14	10	18	16	8	10	18	7
Brazil	14	2	4	8	6	8	2	4	2	3	0	0
Canada	10	8	18	28	9	12	8	0	0	0	0	0
China	13	27	24	28	118	90	70	50	62	12	0	0
Denmark	0	0	0	0	0	0	0	0	0	0	0	0
France	2	1	1	2	1	1	1	2	4	0	0	0
Germany	2	2	5	2	4	4	0	0	0	0	0	0
Greece	2	1	1	1	2	0	0	0	0	0	0	0
India	14	10	27	39	10	4	3	4	1	3	1	0
Indonesia	3	2	2	1	1	2	2	1	0	0	0	0
Italy	4	3	2	5	6	3	5	4	3	3	0	0
Japan	4	1	2	2	2	4	0	0	0	0	0	0
Mexico	1	2	0	0	0	0	0	0	0	0	0	0
Poland	15	1	5	10	6	10	3	1	2	0	0	0
Russia	1	2	1	0	0	0	0	0	0	0	0	0
Saudi Arabia	1	1	1	0	0	1	0	0	0	0	0	0
South Africa	0	0	0	0	0	0	0	0	0	0	0	0
South Korea	2	3	4	2	3	3	3	7	6	11	3	0
Sweden	2	3	1	0	1	1	1	1	0	0	0	0
Turkey	1	1	6	9	4	3	4	2	0	0	0	0
United Kingdom	10	3	11	14	5	10	13	4	7	11	4	0
United States	66	39	40	44	160	125	140	117	48	17	11	4
Total	187	119	163	205	352	291	273	213	143	70	37	11

relationships with clients and reputation play major roles in securing businesses. Fifth, it enables meaningful comparisons in that a time-invariant ranking allows us to compare the performance of law firms across different periods in a meaningful manner. This is particularly important in the legal industry, where market conditions vary significantly from year to year. Using a time-invariant ranking, we can identify law firms that performed well under both favorable and unfavorable market conditions from 1995 to 2019; moreover, it reduces the noise. Furthermore, we can reduce the impact of short-term fluctuations in performance, which can be caused by a range of factors, such as changes in market conditions or fluctuations in client demand (Cheng et al. 2014). This allows us to focus on long-term performance trends that can provide a more accurate measure of a law firm's true capabilities.

Sixth, it enables comparisons across different regions: A time-invariant ranking for the BLAL table for IPOs enables comparisons across different regions, such as developed versus developing countries (Nickell et al. 2008). This provides valuable insights into how law firms in different regions perform in the IPO market, which can inform future research and practice. Furthermore, simplicity: It is easier to calculate and understand because it does not require tracking changes in rankings over time (Simon et al. 2000). Finally, stability: It tends to remain more stable over time, because it is based on a longer period of data (Chen et al. 2006). This can be useful for long-term comparisons between law firms.

According to the BNID, all registered IPO law firms worldwide raised around $4.70 trillion from 1995 to 2019, with the world's top 100 lawyers raising roughly $3.90 trillion, subsequently accounting for approximately 83% of the total IPO market share, as provided in Table 3. The table indicates that DLA Piper LLP is the world's largest multinational IPO law firm, controlling 4.50% of the global IPO market and raising $210 billion between 1995 and 2019. The company has 40 operational offices in Europe, the Asia–Pacific region, the Americas, Africa, and the Middle East. To ensure that our top 100 internationally registered law firms remain stable and provide an adequate generalization of each country's top IPO law firms, Table 4 provides the total local market share of the top 100 globally registered IPO law firms in the BNID from 1995 to 2019. For example, Australia has 296 registered IPO law firms, of which 16 are among the top 100 registered law firms worldwide, as presented in Panels A and B of Table 4. Panel C of Table 4 presents the overall local market share of the IPO law firms in each nation indicated in Panel B, revealing that the 16 top IPO law firms in Australia controlled approximately 87% of the IPO market from 1995 to 2019. The table also reveals that Japan (Indonesia) has the highest (lowest) local market share of IPO law firms, with the largest 14 (10) law firms appearing in the top 100 globally registered law businesses in terms of market share. The BNID controls approximately 95% (40%) of the Japanese (Indonesian) IPO market.

Empirical results

Descriptive statistics

Table 5 presents the Pearson correlation matrix, which confirms the absence of multicollinearity problems between the independent variables. The table indicates that IPO withdrawal risk is inversely associated with prestigious attributes, capital sold,

Table 3 Top 100 globally registered IPO law firm in Bloomberg New Issue Database from 1995 to 2019

Rank	Adviser	Global market share (%)	Total proceeds (USD Billion)
1	DLA Piper LLP	4.50	$210.0
2	Werksmans Attorneys	4.12	$192.3
3	Davis Polk & Wardwell	4.07	$189.9
4	Linklaters LLP	4.06	$189.6
5	Simpson Thacher & Bartlett	3.84	$179.5
6	Freshfields Bruckhaus Deringer	3.78	$176.7
7	Clifford Chance LLP	3.74	$174.4
8	Sullivan & Cromwell	2.98	$139.3
9	Latham & Watkins LLP	2.92	$136.4
10	Skadden Arps Slate Meagher & Flom LLP	2.88	$134.4
11	King & Wood Mallesons	2.59	$120.8
12	Shearman & Sterling LLP	2.17	$101.2
13	Cleary Gottlieb Steen & Hamilton	2.00	$93.3
14	Allen & Overy LLP	1.96	$91.6
15	Herbert Smith Freehills	1.60	$74.9
16	White & Case LLP	1.60	$74.7
17	Weil Gotshal & Manges LLP	1.04	$48.5
18	Grandall Law Firm	1.03	$48.0
19	Haiwen & Partners	1.02	$47.7
20	Cravath Swaine & Moore	0.96	$44.8
21	Jingtian & Gongcheng	0.94	$44.0
22	Sidley Austin LLP	0.93	$43.4
23	K&L Gates LLP	0.90	$42.1
24	Commerce & Finance Law Offices	0.89	$41.8
25	Ropes & Gray LLP	0.86	$40.2
26	Baker McKenzie	0.81	$37.7
27	Norton Rose Fulbright LLP	0.79	$36.7
28	Anderson Mori & Tomotsune	0.71	$33.3
29	Wilson Sonsini Goodrich & Rosati	0.64	$30.0
30	Conyers Dill & Pearman	0.62	$28.7
31	JunHe LLP	0.60	$28.2
32	Debevoise & Plimpton LLP	0.59	$27.7
33	Jia Yuan Law Firm	0.58	$27.0
34	Vinson & Elkins LLP	0.54	$25.3
35	Zhong Lun Law Firm	0.54	$25.0
36	Cooley LLP	0.53	$24.9
37	Paul Hastings LLP	0.53	$24.8
38	Mori Hamada & Matsumoto	0.50	$23.2
39	Slaughter and May	0.47	$22.2
40	Hogan Lovells US LLP	0.47	$21.8
41	Kirkland & Ellis	0.45	$20.8
42	Ashurst LLP	0.44	$20.8
43	Tian Yuan Law Firm	0.44	$20.4
44	Mattos Filho Veiga Filho Marrey Quiroga	0.44	$20.4
45	Amarchand Mangaldas & Suresh A Shroff	0.42	$19.6
46	Goodwin Procter LLP	0.42	$19.5
47	Cahill Gordon & Reindel	0.41	$19.4
48	Hunton Andrews Kurth LLP	0.41	$19.3

Table 3 (continued)

Rank	Adviser	Global market share (%)	Total proceeds (USD Billion)
49	Stikeman Elliott	0.41	$18.9
50	Dewey & LeBoeuf LLP	0.41	$18.9
51	Uria Menendez Law Firm	0.39	$18.3
52	WilmerHale	0.39	$18.2
53	Chiomenti Studio Legale	0.36	$17.0
54	Beijing Deheng Law	0.35	$16.3
55	Osler Hoskin & Harcourt LLP	0.34	$16.0
56	Fried Frank Harris Shriver & Jacobson	0.34	$15.7
57	Venable LLP	0.32	$14.9
58	Millbank LLC	0.31	$14.6
59	Dechert	0.31	$14.3
60	Maples & Calder	0.31	$14.3
61	Willkie Farr & Gallagher	0.30	$14.1
62	Nishimura & Asahi	0.30	$13.9
63	Bonelli Erede Pappalardo	0.28	$13.3
64	Fangda Partners	0.28	$13.2
65	Mayer Brown LLP	0.27	$12.6
66	Dentons	0.27	$12.5
67	Baker Botts LLP	0.26	$12.3
68	Gilbert + Tobin	0.26	$12.2
69	Allens	0.25	$11.6
70	Cariola Diez Perez-Cotapos	0.23	$11.0
71	Cyril Amarchand Mangaldas	0.23	$11.0
72	Morgan Lewis & Bockius LLP	0.23	$10.9
73	Blake Cassels & Graydon LLP	0.23	$10.9
74	Allbright Law Office	0.23	$10.7
75	Clayton Utz	0.23	$10.6
76	Ogier	0.23	$10.6
77	Beijing Grandway Law Offices	0.23	$10.5
78	Torys	0.22	$10.4
78	Shin & Kim	0.22	$10.4
80	Jones Day	0.22	$10.4
81	Simmons & Simmons	0.22	$10.2
82	Luthra & Luthra Law Offices	0.22	$10.1
83	Paul Weiss Rifkind Wharton & Garrison	0.21	$9.7
84	Travers Smith	0.20	$9.5
85	Gibson Dunn & Crutcher	0.20	$9.4
86	Eversheds Sutherland Ltd	0.20	$9.3
87	Morrison & Foerster LLP	0.20	$9.3
88	Fenwick & West LLP	0.19	$8.7
89	Reed Smith LLP	0.18	$8.6
90	Machado Meyer Sendacz e Opice	0.18	$8.5
91	Minter Ellison	0.18	$8.5
92	Khaitan & Co	0.18	$8.2
93	Al Tamimi & Co	0.17	$8.1
94	Beijing Tianyin Law Firm	0.17	$7.9
95	Beijing Kang Da Law Firm	0.16	$7.7
96	AZB & Partners	0.16	$7.6
97	Mourant du Feu & Jeune	0.16	$7.5

Table 3 (continued)

Rank	Adviser	Global market share (%)	Total proceeds (USD Billion)
98	Wachtell Lipton Rosen & Katz	0.16	$7.5
99	McCann Fitzgerald	0.16	$7.4
100	Chapman & Cutler LLP	0.16	$7.4
	Total	82.60	$3,857.4

Table 4 Total local market share of the top 100 globally registered IPO law firms in Bloomberg New Issue Database from 1995 to 2019

	Country name	Total registered IPO law firms in the country in Bloomberg New Issue Database Panel A	The number of law firms represented in the top 100 globally registered IPO law firms Panel B	Total local market share of IPO law firms in every country presented in Panel B Panel C (%)
1	Australia	296	16	87
2	Brazil	39	11	79
3	Canada	233	23	62
4	China	494	35	78
5	Denmark	76	23	72
6	France	42	12	94
7	Germany	47	17	86
8	Greece	32	17	71
9	India	181	19	73
10	Indonesia	58	10	40
11	Italy	80	18	87
12	Japan	28	14	95
13	Mexico	24	11	61
14	Poland	90	11	84
15	Russia	31	12	90
16	Saudi Arabia	23	13	97
17	South Africa	45	13	53
18	South Korea	32	9	70
19	Sweden	55	13	56
20	Turkey	24	6	70
21	United Kingdom	284	21	77
22	United States	451	39	81

technology business type, price range, proportion of institutional investors, market state, IPO discount, firm corporate governance, and GDP growth. However, IPO withdrawal risk is positively related to the integer offer price, offering size, accounting ratios, inflows of foreign direct investment, inflation rate, and interest rate.

Table 6A–C present the descriptive analyses of the dataset. Table 6A reveals that the mean IPO withdrawal rate throughout our sample is 145%, and 16% of the sample companies employ respected attorneys when preparing to go public. Japan (Russia) has the smallest (greatest) recorded IPO withdrawal rate at 2% (43%). Additionally, the data reveal that Brazil (South Korea) has the highest (smallest) rate of hiring famous lawyers at 51% (3%). The table indicates that IPO owners in emerging nations,

Table 5 Pearson correlation matrix

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Withdrawn IPOs (1)	1.000										
Prestigious attorney (2)	−0.047	1.000									
IPO capital sold (3)	−0.014	0.120	1.000								
Technology firm (4)	−0.013	−0.032	−0.056	1.000							
Integer offer price (5)	0.176	−0.004	−0.170	0.073	1.000						
Above range offer price (6)	−0.070	0.017	−0.059	0.112	0.084	1.000					
Size of offering (7)	0.010	0.147	0.012	−0.034	0.012	0.009	1.000				
Ratio of institutional participation (8)	−0.009	0.025	0.016	0.006	−0.010	−0.005	0.001	1.000			
Hot IPO market (9)	−0.032	0.084	0.070	−0.050	−0.035	−0.020	0.006	−0.010	1.000		
Volume of IPO listing (10)	−0.214	−0.065	0.035	−0.027	−0.124	−0.051	−0.031	0.009	0.261	1.000	
IPO discount (11)	−0.039	−0.020	−0.014	0.016	−0.040	0.015	−0.013	0.001	−0.015	0.021	1.000
Financial leverage (12)	0.015	−0.002	0.008	−0.002	0.005	−0.002	0.003	0.000	0.005	−0.022	−0.001
Profitability (13)	0.002	0.003	0.003	0.002	−0.004	0.001	0.001	0.000	0.007	0.012	0.000
Performance (14)	0.030	0.028	−0.032	−0.018	0.038	−0.004	0.025	0.004	−0.004	0.004	0.001
Firm corporate governance (15)	−0.095	0.151	−0.017	−0.033	−0.031	0.018	0.158	0.005	0.016	0.003	0.003
Inflows of foreign direct investment (16)	0.008	0.078	0.302	−0.049	−0.231	−0.040	0.009	0.010	−0.017	0.013	0.031
Interest rate (17)	0.070	−0.042	−0.199	0.035	0.288	0.082	−0.002	−0.007	−0.037	−0.114	−0.012
Growth of gross domestic product (18)	−0.105	0.127	0.035	−0.039	−0.197	−0.048	0.040	0.032	0.107	0.265	0.018
Inflation rate (19)	0.101	0.076	0.104	−0.039	−0.013	−0.004	0.004	0.029	0.107	0.127	−0.016
English common law origin (20)	0.110	0.038	0.096	0.005	0.024	0.126	−0.039	−0.013	−0.005	−0.173	−0.004
French civil law origin (21)	0.053	−0.016	−0.071	−0.001	−0.036	−0.045	0.069	−0.007	−0.015	−0.027	−0.024

	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Withdrawn IPOs (1)										
Prestigious attorney (2)										
IPO capital sold (3)										
Technology firm (4)										
Integer offer price (5)										

Table 5 (continued)

	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Above range offer price (6)										
Size of offering (7)										
Ratio of institutional participation (8)										
Hot IPO market (9)										
Volume of IPO listing (10)										
IPO discount (11)										
Financial leverage (12)	1.000									
Profitability (13)	0.000	1.000								
Performance (14)	−0.001	0.006	1.000							
Firm corporate governance (15)	−0.001	0.003	0.057	1.000						
Inflows of foreign direct investment (16)	−0.004	0.000	−0.025	−0.029	1.000					
Interest rate (17)	0.004	−0.003	0.012	−0.017	−0.383	1.000				
Growth of gross domestic product (18)	−0.008	0.010	0.048	0.150	0.266	−0.364	1.000			
Inflation rate (19)	0.000	0.004	0.010	−0.022	0.089	0.046	0.285	1.000		
English common law origin (20)	0.005	−0.006	−0.074	−0.126	0.147	0.290	−0.372	0.053	1.000	
French civil law origin (21)	0.001	0.002	0.024	−0.036	−0.068	0.070	−0.095	0.046	−0.322	1.000

Withdrawn IPOs have a value of 1 if the IPO is withdrawn and 0 otherwise. Prestigious attorneys are classified as a binary variable through categorization. If the IPO company's attorney is among the top 100 worldwide registered law firms by market share in the BNID, this variable is one. Otherwise, it is zero. IPO capital sold refers to the percentage of outstanding shares offered by IPO owners at the time of being offered to new investors. Technology firm is a binary variable that equals one if the issuing corporation is categorized as a technology company; otherwise, it equals zero. Integer offer price is a categorical variable, it has a value of one if the offer price of IPO is an integer and a value of zero otherwise. Above range offer price is a categorical variable equal to a value of one if the IPO's offering amount rises above the underwriter's pricing range and zero otherwise. Size of offering is the total amount of payment received by each IPO company, calculated by multiplying the number of stocks offered by the offer price in US dollars. Ratio of institutional participation is the proportion of institutional investors to total IPO participants, which includes both institutional and retail investors. Hot IPO market is a dichotomous variable with a value of one if this IPO is listed in a year during which the total number of listings exceeds the average number of listings; otherwise, it has a value of 0. The volume of IPO listing calculates the current number of IPOs listed in each country and year. IPO discount is the percentage of the offer price to the IPO's first day closing price. Financial leverage is the company's equity-to-liabilities ratio. Profitability is the ratio of the total dividends distributed to shareholders to net income at the time of the offering. Performance is the initial public offering common equity rate of return. Firm corporate governance is the total number of independent directors registered at the time of offering. Inflows of foreign direct investment is a time series index from 1995 to 2019 that shows net investment inflows as a proportion of the GDP. Interest rate covers the period 1995 through to 2019 and interest charges on government borrowing to local and foreign entities, such as long-term mortgages, securities, and other treasury bonds. Growth of gross domestic product is a 1995–2019 time series index that shows GDP per capita growth. The inflation rate tracks yearly consumer price inflation from 1995 to 2019. English common law origin is a categorical variable that equals one if the IPO is offered in an English common law jurisdiction and zero otherwise. Australia, South Africa, the United Kingdom, and the United States are nations that inherited the English common law tradition. French civil law origin is a categorical variable with a value of 1 if the IPO is being issued in a French civil law jurisdiction and 0 otherwise. France, Brazil, Greece, Italy, Mexico, and Russia are among the nations which inherited the civil law tradition

Table 6 Descriptive analysis

	All Countries	Australia	Brazil	Canada	China	Denmark	France	Germany
(A)								
Observations	24,312	1957	185	2155	2817	80	761	832
Withdrawn IPOs	0.145	0.12	0.32	0.07	0.21	0.10	0.07	0.09
Prestigious attorney	0.16	0.14	0.51	0.07	0.35	0.08	0.05	0.05
IPO capital sold	0.14	0.22	0.04	0.19	0.17	0.18	0.07	0.06
Technology firm	0.11	0.07	0.04	0.06	0.07	0.17	0.18	0.20
Integer offer price	0.69	0.23	0.77	0.21	0.39	0.83	0.51	0.74
Above range offer price	0.03	0.01	0.02	0.01	0.01	0.01	0.01	0.01
Size of offering (U.S Million)	$108	$48	$316	$26	$144	$187	$170	$174
Ratio of institutional participation	0.19	0.06	0.01	0.01	0.11	0.01	0.29	0.01
Hot IPO market	0.39	0.43	0.53	0.44	0.29	0.34	0.35	0.22
Volume of IPO listing	51	61	14	55	155	10	16	10
IPO discount	0.36	0.15	0.04	0.58	0.57	0.11	− 0.02	0.19
Financial leverage	3.61	2.82	5.15	1.39	2.52	3.24	5.39	3.55
Profitability	0.18	0.17	0.16	0.06	0.25	0.24	0.18	0.17
Performance	0.05	− 0.28	0.03	− 0.26	0.09	− 0.10	− 0.05	− 0.09
Firm corporate governance	8	8	10	4	10	7	4	4
Inflows of foreign direct investment	0.03	0.02	0.03	0.03	0.03	0.02	0.02	0.02
Interest rate	0.10	0.04	0.24	0.13	0.04	0.09	0.09	0.12
Growth of gross domestic product	0.04	0.02	0.04	0.02	0.08	0.02	0.02	0.02
Inflation rate	0.03	0.03	0.06	0.02	0.03	0.02	0.02	0.02
English common law origin	0.53	1	0	1	0	0	0	0
French civil law origin	0.06	0	1	0	0	0	1	0

	Greece	India	Indonesia	Italy	Japan	Mexico	Poland	Russia
(B)								
Observations	323	1027	313	344	1992	56	790	93
Withdrawn IPOs	0.22	0.17	0.06	0.23	0.02	0.11	0.10	0.43
Prestigious attorney	0.05	0.19	0.04	0.16	0.04	0.13	0.05	0.31
IPO capital sold	0.03	0.18	0.14	0.15	0.08	0.07	0.14	0.12
Technology firm	0.07	0.11	0.02	0.08	0.14	0.00	0.09	0.03
Integer offer price	0.77	0.98	0.97	0.61	0.98	0.55	0.51	0.79
Above range offer price	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Size of offering (U.S Million)	$348	$50	$49	$241	$85	$216	$32	$226
Ratio of institutional participation	0.01	0.11	0.07	0.31	0.17	0.01	0.14	0.01
Hot IPO market	0.54	0.36	0.34	0.36	0.42	0.34	0.46	0.50
Volume of IPO listing	19	131	51	12	73	4	90	4
IPO discount	0.24	0.16	0.55	0.08	0.59	0.05	0.27	0.24
Financial leverage	2.28	2.63	7.52	3.35	2.79	5.23	2.14	4.90
Profitability	0.06	0.3	0.28	0.16	0.26	0.12	0.16	0.08
Performance	0.12	0.04	0.03	− 0.04	0.02	0.02	− 0.01	0.07
Firm corporate governance	3	8	5	6	8	12	3	8
Inflows of foreign direct investment	0.01	0.02	0.02	0.02	0.01	0.03	0.03	0.03
Interest rate	0.15	0.16	0.08	0.13	0.16	0.09	0.06	0.03
Growth of gross domestic product	0.03	0.06	0.05	0.02	0.02	0.04	0.05	0.05
Inflation rate	0.03	0.06	0.06	0.02	0.13	0.07	0.03	0.07
English common law origin	0	1	0	0	0	0	0	0
French civil law origin	1	0	0	1	0	1	0	1

Table 6 (continued)

	Saudi Arabia	South Africa	South Korea	Sweden	Turkey	United Kingdom	United States
(C)							
Observations	84	276	1275	287	229	2061	6375
Withdrawn IPOs	0.09	0.04	0.04	0.10	0.30	0.10	0.23
Prestigious attorney	0.25	0.04	0.03	0.04	0.05	0.12	0.23
IPO capital sold	0.28	0.07	0.08	0.17	0.13	0.20	0.10
Technology firm	0.01	0.10	0.16	0.17	0.03	0.11	0.13
Integer offer price	0.99	0.98	0.96	0.76	0.44	0.95	0.89
Above range offer price	0.01	0.01	0.08	0.01	0.01	0.01	0.11
Size of offering (U.S Million)	$299	$52	$45	$76	$70	$119	$130
Ratio of institutional participation	0.07	0.08	0.47	0.01	0.28	0.07	0.10
Hot IPO market	0.35	0.29	0.44	0.23	0.44	0.46	0.39
Volume of IPO listing	21	9	117	13	63	53	150
IPO discount	1.2	1.13	0.42	0.09	0.04	0.16	0.17
Financial leverage	1.89	3.05	2.69	2.40	3.57	3.66	5.83
Profitability	0.20	0.21	0.31	0.16	0.02	0.38	0.12
Performance	0.03	− 0.30	− 0.09	− 0.23	− 0.09	− 0.12	0.09
Firm corporate governance	4	6	4	5	4	5	13
Inflows of foreign direct investment	0.05	0.02	0.02	0.03	0.03	0.04	0.02
Interest rate	0.03	0.13	0.05	0.10	0.06	0.08	0.14
Growth of gross domestic product	0.02	0.02	0.05	0.02	0.06	0.02	0.02
Inflation rate	0.04	0.03	0.03	0.02	0.06	0.02	0.03
English common law origin	0	1	0	0	0	1	1
French civil law origin	0	0	0	0	0	0	0

(A), (B), (C) Withdrawn IPOs have a value of 1 if the IPO is withdrawn and 0 otherwise. Prestigious attorneys are classified as a binary variable through categorization. If the IPO company's attorney is among the top 100 worldwide registered law firms by market share in the BNID, this variable is one. Otherwise, it is zero. IPO capital sold refers to the percentage of outstanding shares offered by IPO owners at the time of being offered to new investors. Technology firm is a binary variable that equals one if the issuing corporation is categorized as a technology company; otherwise, it equals zero. Integer offer price is a categorical variable, it has a value of one if the offer price of IPO is an integer and a value of zero otherwise. Above range offer price is a categorical variable equal to a value of one if the IPO's offering amount rises above the underwriter's pricing range and zero otherwise. Size of offering is the total amount of payment received by each IPO company, calculated by multiplying the number of stocks offered by the offer price in US dollars. Ratio of institutional participation is the proportion of institutional investors to total IPO participants, which includes both institutional and retail investors. Hot IPO market is a dichotomous variable with a value of one if this IPO is listed in a year during which the total number of listings exceeds the average number of listings; otherwise, it has a value of 0. The volume of IPO listing calculates the current number of IPOs listed in each country and year. IPO discount is the percentage of the offer price to the IPO's first day closing price. Financial leverage is the company's equity-to-liabilities ratio. It shows the company's offering leverage. Profitability is the ratio of the total dividends distributed to shareholders to net income at the time of the offering. Performance is the initial public offering common equity rate of return. Firm corporate governance is the total number of independent directors registered at the time of offering. Inflows of foreign direct investment is a time series index from 1995 to 2019 that shows net investment inflows as a proportion of the GDP. Interest rate covers the period 1995 through to 2019 and interest charges on government borrowing to local and foreign entities, such as long-term mortgages, securities, and other treasury bonds. Growth of gross domestic product is a 1995-2019 time series index that shows GDP per capita growth. The inflation rate tracks yearly consumer price inflation from 1995 to 2019. English common law origin is a categorical variable that equals one if the IPO is offered in an English common law jurisdiction and zero otherwise. Australia, South Africa, the United Kingdom, and the United States are nations that inherited the English common law tradition. French civil law origin is a categorical variable with a value of 1 if the IPO is being issued in a French civil law jurisdiction and 0 otherwise. France, Brazil, Greece, Italy, Mexico, and Russia are among the nations which inherited the civil law tradition

such as Brazil (51%), China (35%), India (19%), Russia (31%), and Saudi Arabia (25%) prefer to engage with a greater proportion of reputed lawyers than the worldwide average. Conversely, IPO businesses in wealthy countries such as Germany (5%), Canada (7%), Denmark (8%), Australia (14%), and the United Kingdom (12%) tend to employ fewer eminent attorneys than the worldwide average. In certain situations, a greater proportion of developing countries employing reputable attorneys, such as Saudi Arabia (9%), decreased their IPO withdrawal rate, whereas it increased the rate in Russia (43%). Conversely, most developed nations recorded a smaller percentage of IPO failures and eminent attorneys. This discrepancy in outcomes between developed and developing countries may be attributable to differences in capital market development, legal systems, and cultural values that shape the role of reputable intermediaries and IPO pricing in developed and developing nations (Jamaani and Ahmed 2020, 2021, 2022; Jamaani and Alidarous 2022).

Moreover, on average, IPO owners sell 14% of their companies before going public, and 11% of these IPOs are classified as technology enterprises. Moreover, 69% of the IPOs have an integer offer price, whereas 3% have a price revision higher than the offer price. Institutional investors account for 19% of the total offerings. Furthermore, the data reveal that the annual IPO listing amounts to approximately 53 IPOs, with successful IPOs having 36% underpricing on the first trading day. During the offering, the average number of registered independent directors is eight. During the IPO, the average inflation rate is 3% and the average interest rate is 10%. Finally, 53% of our IPOs are classified as English common law IPOs, whereas only 6% are classified as French civil law IPOs.

Regression results and discussion

Table 7 presents the outcomes of the seven models. Model 1 contains only the investigated variable, prestigious attorneys, while controlling for industry, year, and country effects, as is customary for IPO research. Model 1 indicates the findings for the prestigious attorney factor, which evaluates the impact of highly regarded solicitors on the likelihood of IPO withdrawal. The coefficient is statistically significant at a 1% level. This finding strongly suggests that hiring famous lawyers reduces IPO withdrawals by 12% throughout the IPO market. This finding supports our hypotheses. As Okamoto (1995) and Moran and Pandes (2019) reveal, the recruitment of prominent attorneys improves IPO companies' standing and credibility. When undertaking a full evaluation of IPO prospectuses, eminent lawyers guarantee that the material contained in them is free of inaccuracies and inadequacies, and is subsequently trusted by investors. Consequently, the hiring of renowned legal firms by IPO issuers provides an additional level of reliability to the information provided to the IPO players beyond that included in the prospectus. Our results, which are consistent with those of Barondes et al. (2007), Bates et al. (2018), Moran and Pandes (2019), and Jamaani and Alidarous (2022), demonstrate that reputed attorneys appointed by IPO businesses can function as certification indicators of trustworthiness in communicating IPO owners' classified information to IPO investors honestly and responsibly. Thus, the ex-ante uncertainty that IPO investors used to suffer regarding the quality of the material included in prospectuses is projected to diminish as prestigious lawyers are hired, resulting in a lower IPO withdrawal rate.

Table 7 Main regression results

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Main variable							
Prestigious attorney	− 0.12***	− 0.13***	− 0.20***	− 0.21***	− 0.16***	− 0.16***	− 0.22***
	[− 4.08]	[− 4.12]	[− 6.08]	[− 6.10]	[− 4.65]	[− 4.73]	[− 6.23]
IPO firm-specific variables							
IPO capital sold		− 0.01***	− 0.01***	− 0.01***	− 0.01***	− 0.01***	− 0.01***
		[− 11.6]	[− 11.3]	[− 11.2]	[− 11.4]	[− 11.9]	[− 12.6]
Technology firm		− 0.30***	− 0.32***	− 0.32***	− 0.33***	− 0.32***	− 0.29***
		[− 7.21]	[− 7.13]	[− 7.13]	[− 7.31]	[− 6.89]	[− 6.20]
Integer offer price		− 0.09***	− 0.09***	− 0.09***	− 0.10***	− 0.10***	− 0.10***
		[− 26.2]	[− 24.4]	[− 23.9]	[− 24.1]	[− 24.4]	[− 25.6]
Above range offer price		− 0.02***	− 0.02***	− 0.02***	− 0.02***	− 0.02***	− 0.02***
		[− 7.66]	[− 7.10]	[− 7.11]	[− 7.11]	[− 7.05]	[− 7.17]
Size of offering		0.01	− 0.01	− 0.01	0.01	0.01	0.01
		[0.34]	[− 0.14]	[− 0.18]	[0.39]	[0.38]	[0.23]
Ratio of institutional participation		− 0.010***	− 0.01***	− 0.01***	− 0.02***	− 0.02***	− 0.02***
		[− 4.25]	[− 4.24]	[− 4.25]	[− 4.39]	[− 4.90]	[− 5.03]
IPO market-specific variables							
Hot IPO market			− 0.059***	− 0.059***	− 0.055**	− 0.047**	− 0.069***
			[− 2.25]	[− 2.26]	[− 2.10]	[− 1.80]	[− 2.57]
Volume of IPO listing			− 0.01***	− 0.01***	− 0.01***	− 0.01***	− 0.01***
			[− 29.5]	[− 29.5]	[− 29.9]	[− 28.0]	[− 26.5]
IPO discount			− 0.012***	− 0.012***	− 0.012***	− 0.012***	− 0.011***
			[− 34.9]	[− 34.8]	[− 33.5]	[− 32.1]	[− 29.8]
IPO firm accounting ratio variables							
Financial leverage				0.01	0.01	0.01	0.01
				[0.98]	[0.55]	[0.42]	[0.71]
Profitability				0.01**	0.01	0.01	0.01
				[1.81]	[1.06]	[0.99]	[1.11]
Performance				0.01	0.01	0.01	0.01
				[1.24]	[1.28]	[1.29]	[1.30]
IPO firm corporate governance variable							
Firm corporate governance					− 0.08***	− 0.07***	− 0.07***
					[− 13.9]	[− 13.3]	[− 12.9]
Macroeconomic variables							
Inflows of foreign direct investment						0.05***	0.02**
						[5.74]	[2.17]
Interest rate						0.01	− 0.01***
						[0.77]	[− 3.56]
Growth of gross domestic product						− 0.02***	0.01**
						[− 2.72]	[1.91]
Inflation rate						0.06***	0.05***
						[8.59]	[7.73]
Legal origin variables							
English common law origin							0.05***
							[11.4]
French civil law origin							0.06***
							[9.60]
Industry dummy	YES	YES	YES	YES	YES	YES	YES
Year dummy	YES	YES	YES	YES	YES	YES	YES

Table 7 (continued)

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Country dummy	YES	YES	YES	YES	YES	YES	YES
Constant	− 2.72***	− 3.28***	− 3.03***	− 3.02***	− 2.99***	− 3.20***	− 3.53***
	[− 63.8]	[− 60.8]	[− 52.3]	[− 52.2]	[− 50.8]	[− 42.6]	[− 43.3]
Observations	24,312	24,312	24,312	24,312	24,312	24,312	24,312
R squared	0.10	0.19	0.29	0.29	0.31	0.31	0.32

Withdrawn IPOs have a value of 1 if the IPO is withdrawn and 0 otherwise. Prestigious attorneys are classified as a binary variable through categorization. If the IPO company's attorney is among the top 100 worldwide registered law firms by market share in the BNID, this variable is one. Otherwise, it is zero. IPO capital sold refers to the percentage of outstanding shares offered by IPO owners at the time of being offered to new investors. Technology firm is a binary variable that equals one if the issuing corporation is categorized as a technology company; otherwise, it equals zero. Integer offer price is a categorical variable, it has a value of one if the offer price of IPO is an integer and a value of zero otherwise. Above range offer price is a categorical variable equal to a value of one if the IPO's offering amount rises above the underwriter's pricing range and zero otherwise. Size of offering is the total amount of payment received by each IPO company, calculated by multiplying the number of stocks offered by the offer price in US dollars. Ratio of institutional participation is the proportion of institutional investors to total IPO participants, which includes both institutional and retail investors. Hot IPO market is a dichotomous variable with a value of one if this IPO is listed in a year during which the total number of listings exceeds the average number of listings; otherwise, it has a value of 0. The volume of IPO listing calculates the current number of IPOs listed in each country and year. IPO discount is the percentage of the offer price to the IPO's first day closing price. Financial leverage is the company's equity-to-liabilities ratio. It shows the company's offering leverage. Profitability is the ratio of the total dividends distributed to shareholders to net income at the time of the offering. Performance is the initial public offering common equity rate of return. Firm corporate governance is the total number of independent directors registered at the time of offering. Inflows of foreign direct investment is a time series index from 1995 to 2019 that shows net investment inflows as a proportion of the GDP. Interest rate covers the period 1995 through to 2019 and interest charges on government borrowing to local and foreign entities, such as long-term mortgages, securities, and other treasury bonds. Growth of gross domestic product is a 1995–2019 time series index that shows GDP per capita growth. The inflation rate tracks yearly consumer price inflation from 1995 to 2019. English common law origin is a categorical variable that equals one if the IPO is offered in an English common law jurisdiction and zero otherwise. Australia, South Africa, the United Kingdom, and the United States are nations that inherited the English common law tradition. French civil law origin is a categorical variable with a value of 1 if the IPO is being issued in a French civil law jurisdiction and 0 otherwise. France, Brazil, Greece, Italy, Mexico, and Russia are among the nations which inherited the civil law tradition. Robust Z-statistics are heteroscedasticity corrected and indicate ***$p < 0.01$, **$p < 0.05$, and *$p < 0.1$

Models 2–7 report the results of the examined variable, prestigious attorney, while gradually adding the controlling variables of IPO firm-specific, market-specific, firm accounting ratio, firm corporate governance, and macroeconomic and legal origin, following the IPO withdrawal literature (Busaba et al. 2001; Qing 2011; Fernando et al. 2015; Helbing 2019; Helbing et al. 2019; Reiff and Tykvová 2021). Although the significant initial outcome remained consistent, the coefficients of prestigious attorneys become economically stronger. For example, Model 7 reports the largest coefficient, indicating that hiring prestigious attorneys reduces the IPO withdrawal rate by 22%. The table indicates that IPO firm-specific variables are important factors controlling IPO withdrawals. In the presence of reputable lawyers, a higher percentage of sold capital, technology firm type, integer offer price, above-range offer price, and institutional investor participation lower the IPO withdrawal rate, as provided in Models 2–7. The coefficient of prestigious lawyers rises to 20% after we control for IPO market-specific factors such as the hot IPO market, volume, and discount. On average, the relationship between hiring prestigious attorneys and IPO withdrawal is not affected by the IPO firm accounting ratio variables. Conversely, Models 5 and 6 indicate that the coefficient of reputable lawyers dropped after controlling for IPO firms' corporate governance and macroeconomic variables. However, the coefficients indicate that hiring reputable lawyers reduces IPO withdrawal rates by 16%. The coefficient of reputable attorneys records the largest effect (22%) after capturing differences across countries of legal origin, as indicated in Model 7. This confirms the previous literature on various effects of different legal systems on the role of

reputable intermediaries in the IPO market across nations (Jamaani and Ahmed 2020, 2021, 2022; Jamaani and Alidarous 2022).

Robustness tests

Differences in legal systems

The literature on law and finance indicates that, in addition to business features (e.g., employing non-reputable attorneys) that may heighten information asymmetry among IPO participants, IPOs' information asymmetry problems may be counterbalanced or seriously affected by differences in legal systems (Okamoto 1995; Beatty and Welch 1996; Ritter 2003; Hanley and Hoberg 2010; Lin et al. 2013; Moran and Pandes 2019; Jamaani and Ahmed 2021). In addition to the significance of reputed intermediaries, such as attorneys, in the primary market, a country's institutional or legal structure may guide the role of intermediaries in equity markets (Demirgüç-Kunt et al. 2004; Aggarwal and Goodell 2009; Poghosyan 2013; Moran and Pandes 2019; Emenalo and Gagliardi 2020).

Jamaani and Alidarous (2022) reveal that the projected influence of renowned intermediaries such as prestigious underwriters, auditors, and law firms on IPO companies' underpricing may differ across market sophistication and rule of law levels. Jamaani and Ahmed (2020, 2021) discover the evidence for spinning behavior organized by reputable intermediaries such as underwriting banks in less sophisticated financial markets which are typical in developing nations. The authors conclude that distinguished underwriters in countries with weak legal systems charge issuers greater underwriting expenses while failing to minimize IPO underpricing compared to their counterparts in countries with strong legal systems. Sundarasen et al. (2021) document findings indicating that Big 4 auditing firms are only successful in lowering the underpricing of IPO corporations in common-law nations, which are typically mature economies with a strong rule of law and sophisticated market systems in place. Conversely, the authors conclude that reputed auditing companies provide no benefit to IPO businesses listed in civil law nations. This finding reflects the fact that emerging economies have poor law enforcement systems. According to Crabb (1983) and Hausfeld (2009), credible intermediates such as renowned attorneys have a distinct influence on information generation between industrialized and developing countries. Collectively, these findings indicate that when a nation's institutional framework is of low quality, intermediaries' perceptions of risk in IPO businesses lead to unreliable results.

We review our results after adjusting for time-variant changes in legal systems across nations (Jamaani and Ahmed 2021; Jamaani and Alidarous 2021). We add additional robustness testing, where we control separately for the impact of time-variant differences in legal systems, including the rule of law, regulatory quality, government effectiveness, transparency of government policymaking, efficacy of corporate boards, and enforcement of securities regulations, following Helbing et al. (2019), Jamaani and Ahmed (2021), and Jamaani and Alidarous (2022). The rule of law is a yearly time-variant index between 1995 and 2019 that measures public belief in and adherence to public laws, including intellectual property rights, contract enforcement, litigation, violence, and crime in a nation (Global Competitiveness Report 2019). Regulatory quality is a yearly time-variant index from 1995 to 2019 that assesses the government's capacity to create and enforce effective rules and regulations that encourage private sector growth.

Government effectiveness, a yearly time-variant index from 1995 to 2019, measures government service quality, autonomy from political influences, policy development and execution, and an administration's reputation for implementing such policies. Transparency of government policymaking is a yearly time-variant index from 1995 to 2019 that ranks opinion poll responses to the following question: How simple is it for companies to learn about government policy alterations that affect them in your country? We measure the enforcement of securities regulations using a time series index from 1995 to 2019. The index indicates the yearly changes in the level of strictness in regulating securities exchanges in all countries. The index ranges from 0 for the worst enforcement of securities regulations to 7 for the best enforcement. All legal system measures are sourced from the Global Competitiveness Report (2019). Models 8–14 in Table 8 provide consistent results, confirming the adverse association between hiring reputable attorneys and the probability of IPO withdrawal risk.\

Differences in culture

Researchers believe that nations' cultural values may increase the IPO information asymmetry, depending on the circumstances (Lewellyn 2014; Jamaani and Ahmed 2022). This is in conjunction with other IPO company qualities (e.g., hiring non-prominent attorneys), which may increase information symmetry between IPO participants (Gupta et al. 2018; Moran and Pandes 2019). Jamaani and Ahmed (2022) show how disparities in power distance across countries might impact information symmetry, demand, and supply of IPO stocks. Researchers have used power distance to explore how cultural differences affect business decisions (Ashraf et al. 2016; Krause et al. 2016; Jamaani and Ahmed 2022). Power distance is an index that ranges from 0 (100) indicating the lowest (highest) level of power distance in a society, in which a value of 100 (0) means that people with no (full) power knowingly and willingly expect (do not expect) and accept (reject) that power is vastly disproportionate (proportionate) (Hofstede 2001). In societies with significant power distances, a lack of social trust increases ex-ante IPO investor uncertainty. Consequently, in line with Jamaani and Ahmed (2022), we apply the cultural characteristic of power distance created by Hofstede (2001) to account for cultural variations between nations and determine whether the influence of hiring prestigious attorneys on the likelihood of IPO withdrawal will persist. Model 13 in Table 8 reports that prestigious law firms succeed in reducing their IPO withdrawal risk even after controlling for differences in power distance across countries.

Differences in economic development

We extend our analysis to determine whether our results hold for nations with less economic development.[2] By using information asymmetry and compliance norms, IPO research differentiates between established and developing economies. This is because

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[2] Morgan Stanley Capital International (2020) classifies capital markets as either developing or developed. The latter has advanced stock markets. Research reveals that developing (developed) stock markets have inefficient (efficient) market resource allocation, weaker (firmer) regulatory frameworks, high (low) volatility, fewer (more) diverse financial markets, and low (high) information asymmetries (Boulton et al. 2010; Jamaani and Ahmed 2020). Developed nations include the United States, Canada, Australia, Denmark, Germany, France, Greece, Japan, Italy, South Africa, the United Kingdom, and Sweden. The developing nations include South Korea, China, Brazil, India, Mexico, Indonesia, Poland, Saudi Arabia, Russia, and Turkey.

Table 8 Robustness consideration after controlling for differences in legal systems, cultural backgrounds, and developing economies

Variables	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14	Model 15
Main variable								
Prestigious attorney	− 0.12***	− 0.11***	− 0.12***	− 0.11***	− 0.12***	− 0.11***	− 0.12***	− 0.12***
	[− 4.41]	[− 4.36]	[− 4.52]	[− 4.20]	[− 4.60]	[− 4.35]	[− 4.67]	[− 4.47]
IPO firm-specific variables								
IPO capital sold	− 0.011***	− 0.011***	− 0.010***	− 0.011***	− 0.010***	− 0.011***	− 0.010***	− 0.011***
	[− 16.3]	[− 16.4]	[− 15.9]	[− 16.5]	[− 15.8]	[− 16.0]	[− 15.8]	[− 16.1]
Technology firm	− 0.33***	− 0.33***	− 0.33***	− 0.34***	− 0.33***	− 0.33***	− 0.33***	− 0.33***
	[− 8.79]	[− 8.78]	[− 8.58]	[− 8.82]	[− 8.62]	[− 8.68]	[− 8.65]	[− 8.74]
Integer offer price	1.13***	1.14***	1.11***	1.14***	1.12***	1.10***	1.11***	1.12***
	[35.7]	[36.0]	[35.5]	[36.1]	[35.7]	[34.7]	[35.3]	[35.3]
Above range offer price	− 1.39***	− 1.38***	− 1.40***	− 1.39***	− 1.42***	− 1.39***	− 1.41***	− 1.40***
	[− 8.96]	[− 8.89]	[− 8.94]	[− 8.89]	[− 9.10]	[− 8.96]	[− 8.96]	[− 8.99]
Size of offering	− 0.010	− 0.010	− 0.010	− 0.010	− 0.010	− 0.010	− 0.010	− 0.010
	[− 0.79]	[− 0.81]	[− 0.75]	[− 0.82]	[− 0.73]	[− 0.75]	[− 0.79]	[− 0.76]
Ratio of institutional participation	− 0.010	− 0.010	− 0.010	− 0.010	− 0.010	− 0.010	− 0.010	− 0.010
	[− 0.83]	[− 0.84]	[− 0.83]	[− 0.84]	[− 0.78]	[− 0.89]	[− 0.85]	[− 0.83]
IPO market-specific variables								
Hot IPO market	0.039*	0.042*	0.039*	0.044**	0.050**	0.047**	0.052**	0.041*
	[1.76]	[1.90]	[1.75]	[1.99]	[2.25]	[2.12]	[2.32]	[1.86]
Volume of IPO listing	− 0.001***	− 0.001***	− 0.001***	− 0.001***	− 0.001***	− 0.001***	− 0.001***	− 0.001***
	[− 30.1]	[− 29.7]	[− 29.8]	[− 29.8]	[− 29.6]	[− 29.8]	[− 29.5]	[− 29.9]
IPO discount	− 0.014***	− 0.014***	− 0.014***	− 0.014***	− 0.014***	− 0.014***	− 0.014***	− 0.014***
	[− 42.3]	[− 42.3]	[− 42.5]	[− 42.2]	[− 42.5]	[− 42.5]	[− 42.7]	[− 42.4]
IPO firm accounting variables								
Financial leverage	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*
	[1.82]	[1.81]	[1.77]	[1.84]	[1.76]	[1.80]	[1.72]	[1.80]
Profitability	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	[0.87]	[0.89]	[0.90]	[0.88]	[0.92]	[0.86]	[0.91]	[0.87]
Performance	− 0.010	− 0.010	− 0.010	− 0.010	− 0.010	− 0.010	− 0.010	− 0.010
	[− 0.33]	[− 0.31]	[− 0.35]	[− 0.33]	[− 0.40]	[− 0.36]	[− 0.37]	[− 0.34]
IPO firm corporate governance variable								
Firm corporate governance	− 0.011***	− 0.011***	− 0.011***	− 0.011***	− 0.011***	− 0.011***	− 0.011***	− 0.011***
	[− 17.7]	[− 17.7]	[− 17.6]	[− 17.7]	[− 17.7]	[− 17.7]	[− 17.7]	[− 17.7]
Macroeconomic variables								
Inflows of foreign direct investment	0.037***	0.031***	0.052***	0.030***	0.048***	0.046***	0.059***	0.042***
	[5.10]	[4.30]	[7.09]	[4.20]	[6.69]	[6.40]	[7.92]	[6.00]
Interest rate	− 0.016***	− 0.016***	− 0.015***	− 0.017***	− 0.015***	− 0.015***	− 0.013***	− 0.015***
	[− 7.64]	[− 7.55]	[− 7.48]	[− 7.74]	[− 7.36]	[− 7.54]	[− 6.02]	[− 7.31]
Growth of gross domestic product	0.028***	0.031***	− 0.0031	0.034***	0.0066	0.00087	− 0.011*	0.014**
	[4.63]	[5.52]	[− 0.50]	[6.06]	[1.26]	[0.14]	[− 1.95]	[2.17]
Inflation rate	0.043***	0.046***	0.029***	0.052***	0.025***	0.027***	0.037***	0.034***
	[7.14]	[7.69]	[5.53]	[8.13]	[4.73]	[5.11]	[7.18]	[5.70]
Legal origin variables								
English common law origin	0.17***	0.15***	0.28***	0.13***	0.27***	0.26***	0.28***	0.22***
	[5.85]	[5.20]	[9.45]	[4.41]	[9.42]	[8.70]	[9.85]	[7.48]
French civil law origin	0.16***	0.14***	0.15***	0.15***	0.097**	0.13***	0.12***	0.17***
	[3.67]	[3.08]	[3.32]	[3.29]	[2.14]	[2.88]	[2.60]	[3.85]

Table 8 (continued)

Variables	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14	Model 15
Rule of law	6.93***							
	[3.79]							
Regulatory quality		9.92***						
		[6.97]						
Efficacy of corporate boards			− 0.17***					
			[− 5.45]					
Government effectiveness				14.3***				
				[8.93]				
Transparency of government policymaking					− 0.17***			
					[− 7.27]			
Power distance						0.0042***		
						[3.92]		
Enforcement of securities regulation							− 0.25***	
							[− 8.48]	
Developing countries dummy								0.018
								[0.42]
Industry dummy	YES	YES	YES	YES	YES	YES	YES	YES
Year dummy	YES	YES	YES	YES	YES	YES	YES	YES
Country dummy	YES	YES	YES	YES	YES	YES	YES	YES
Constant	− 2.99***	− 3.02***	− 1.94***	− 3.12***	− 1.99***	− 3.04***	− 1.55***	− 2.88***
	[− 45.0]	[− 47.7]	[− 10.7]	[− 47.1]	[− 14.8]	[− 40.4]	[− 9.44]	[− 47.5]
Observations	24,312	24,312	24,312	24,312	24,312	24,312	24,312	24,312
R squared	0.28	0.28	0.29	0.30	0.31	0.32	0.29	0.28

Withdrawn IPOs have a value of 1 if the IPO is withdrawn and 0 otherwise. Prestigious attorneys are classified as a binary variable through categorization. If the IPO company's attorney is among the top 100 worldwide registered law firms by market share in the BNID, this variable is one. Otherwise, it is zero. IPO capital sold refers to the percentage of outstanding shares offered by IPO owners at the time of being offered to new investors. Technology firm is a binary variable that equals one if the issuing corporation is categorized as a technology company; otherwise, it equals zero. Integer offer price is a categorical variable, it has a value of one if the offer price of IPO is an integer and a value of zero otherwise. Above range offer price is a categorical variable equal to a value of one if the IPO's offering amount rises above the underwriter's pricing range and zero otherwise. Size of offering is the total amount of payment received by each IPO company, calculated by multiplying the number of stocks offered by the offer price in US dollars. Ratio of institutional participation is the proportion of institutional investors to total IPO participants, which includes both institutional and retail investors. Hot IPO market is a dichotomous variable with a value of one if this IPO is listed in a year during which the total number of listings exceeds the average number of listings; otherwise, it has a value of 0. The volume of IPO listing calculates the current number of IPOs listed in each country and year. IPO discount is the percentage of the offer price to the IPO's first day closing price. Financial leverage is the company's equity-to-liabilities ratio. It shows the company's offering leverage. Profitability is the ratio of the total dividends distributed to shareholders to net income at the time of the offering. Performance is the initial public offering common equity rate of return. Firm corporate governance is the total number of independent directors registered at the time of offering. Inflows of foreign direct investment is a time series index from 1995 to 2019 that shows net investment inflows as a proportion of the GDP. Interest rate covers the period 1995 through to 2019 and interest charges on government borrowing to local and foreign entities, such as long-term mortgages, securities, and other treasury bonds. Growth of gross domestic product is a 1995–2019 time series index that shows GDP per capita growth. The inflation rate tracks yearly consumer price inflation from 1995 to 2019. English common law origin is a categorical variable that equals one if the IPO is offered in an English common law jurisdiction and zero otherwise. Australia, South Africa, the United Kingdom, and the United States are nations that inherited the English common law tradition. French civil law origin is a categorical variable with a value of 1 if the IPO is being issued in a French civil law jurisdiction and 0 otherwise. France, Brazil, Greece, Italy, Mexico, and Russia are among the nations which inherited the civil law tradition. Robust Z-statistics are heteroscedasticity corrected and indicate ***$p < 0.01$, **$p < 0.05$, and *$p < 0.1$

developed countries have tougher disclosure standards and significantly more transparent markets and listing requirements (El-Wassal 2005; Yartey 2010; Jamaani and Ahmed 2020). According to Jamaani and Ahmed (2022), renowned underwriters in developing countries charge higher fees while failing to eliminate IPO underpricing, compared to their counterparts in industrialized stock markets. Model 15 in Table 8 produces consistent results, indicating that hiring prestigious attorneys reduces IPO withdrawal rates, even after controlling for differences across developed and developing economies.

Additional robustness tests

We perform a series of additional tests to ensure that our results are consistent and free from bias. First, further testing is carried out by dividing the data into hot and cold IPO market conditions, prestigious underwriting[3] banks, and technological and non-technological enterprises. The reported results across Models 16–20 in Table 9 indicate consistent outcomes, confirming a negative relationship between hiring reputable attorneys and IPO withdrawal.

Second, following Jamaani and Ahmed (2020), we consider the influence of clustering in error terms within industries, sectors, years, and countries. Onali et al. (2017) demonstrate that financial data exhibit important error-term clustering across years, sectors, and nations. Lowry and Schwert (2002) describe the year clustering effect in the 1960s and 1990s in the US IPO market, whereby cold IPO (hot IPO) years are often followed by weak (strong) IPO activity. Furthermore, Yung et al. (2008) link year clustering to information asymmetry in the US IPO market from 1973 to 2004. IPO issuers reduce underpricing by launching their enterprises selectively over years with little asymmetric information. Benninga et al. (2005) indicate that sector clustering arises because of fast IPO activity driven by IPO businesses with relatively high cash flows benefitting from greater market value. Thus, the IPO process releases crucial information regarding IPO businesses with relatively strong cash flows.

Following Cameron and Miller's (2015) methodology, we use cluster-robust standard errors to account for the potential presence of a clustering effect in the IPO data. Rogers (1994) was the first to design and introduce this process in Stata. Cameron and Miller (2015) subsequently improved the functionality of this procedure in Stata 15, released in 2015 (refer to Cameron and Miller for more information on the econometric underpinnings of clustering estimation). Jamaani and Ahmed (2020) argue that it is possible to overestimate Z-statistic values if one fails to account for the effect of clustering in error terms. Table 9 reports the results of Models 21–23, where they all, on average, provide consistent results, confirming that reputable lawyers selected by IPO companies might be an indication of reliability in communicating classified information to IPO stakeholders honestly and responsibly. Employing prominent lawyers reduces investors' ex-ante uncertainty regarding the reliability of publicly filing contractual obligations, resulting in a lower IPO withdrawal rate, even after controlling for possible clustering on the IPO date.

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[3] We follow IPO literature to replicate the way the variable reputable underwriter constructed as a binary variable was established using a ranking mechanism developed by Carter and Manaster (1990). It represents a value of one if the underwriting company is one of the world's top 100 internationally registered underwriters by total market share in BNID, otherwise it equals zero (Neupane and Thapa 2013; Jamaani and Ahmed 2021).

Table 9 Additional robustness tests

Variables	Model 16	Model 17	Model 18	Model 19	Model 20	Model 21	Model 22	Model 23
Main variable								
Prestigious attorney	− 0.33***	− 0.20***	− 0.35***	− 0.18*	− 0.27***	− 0.22**	− 0.22***	− 0.22***
	[− 6.88]	[− 3.73]	[− 7.18]	[− 1.46]	[− 7.13]	[− 2.46]	[− 3.00]	[− 3.65]
IPO firm-specific variables								
IPO capital sold	− 0.01***	− 0.01***	− 0.01***	− 0.02***	− 0.01***	− 0.01***	− 0.01***	− 0.01***
	[− 9.82]	[− 7.42]	[− 8.25]	[− 4.79]	[− 11.7]	[− 5.24]	[− 8.86]	[− 3.65]
Technology firm	− 0.26***	− 0.24***	− 0.11*			− 0.29***	− 0.29*	− 0.29***
	[− 3.99]	[− 3.48]	[− 1.61]			[− 4.06]	[− 1.39]	[− 2.25]
Integer offer price	0.10***	0.10***	0.02***	0.10***	0.10***	0.01***	0.01***	0.01***
	[19.4]	[17.6]	[15.1]	[6.49]	[25.2]	[14.2]	[13.9]	[5.64]
Above range offer price		− 0.02***	− 0.02***	− 0.02***		− 0.02***	− 0.02***	− 0.02***
		[− 5.77]	[− 6.86]	[− 4.23]		[− 4.71]	[− 5.52]	[− 38.9]
Size of offering	0.01	− 0.01	0.01	− 0.01	0.01	0.01	0.01	0.01
	[0.30]	[− 0.62]	[0.25]	[− 0.65]	[0.11]	[0.22]	[0.36]	[0.17]
Ratio of institutional participation	− 0.02***	− 0.02***	− 0.02***		− 0.02***	− 0.02***	− 0.02***	− 0.02***
	[− 2.94]	[− 4.25]	[− 3.11]		[− 5.00]	[− 5.69]	[− 4.37]	[− 8.46]
IPO market-specific variables								
Hot IPO market			− 0.12***	0.17**	− 0.094***	− 0.07	− 0.07	− 0.07
			[− 2.92]	[1.88]	[− 3.31]	[− 0.34]	[− 0.82]	[− 0.96]
Volume of IPO listing	− 0.01***	− 0.01***	− 0.01***	− 0.01***	− 0.01***	− 0.01***	− 0.01***	− 0.01***
	[− 22.0]	[− 19.3]	[− 19.7]	[− 10.6]	[− 23.6]	[− 7.14]	[− 7.50]	[− 7.40]
IPO discount	− 0.012***	− 0.012***	− 0.015***	− 0.014***	− 0.011***	− 0.01***	− 0.01***	− 0.01***
	[− 19.7]	[− 20.8]	[− 19.1]	[− 10.1]	[− 27.7]	[− 9.06]	[− 20.5]	[− 4.87]
IPO firm accounting variables								
Financial leverage	0.01*	0.01	0.01	− 0.03	0.01	0.01	0.01	0.01
	[1.63]	[0.60]	[1.12]	[− 1.23]	[0.30]	[0.66]	[0.71]	[0.73]
Profitability	0.01*	0.0107*	0.01***	0.01**	0.01	0.01	0.01	0.01***
	[1.46]	[1.75]	[2.89]	[2.25]	[1.31]	[0.97]	[1.14]	[3.75]
Performance	0.01	0.01***	0.01	0.01***	0.01	0.01	0.01	0.01**
	[0.90]	[4.20]	[0.71]	[2.69]	[1.24]	[1.29]	[1.33]	[1.81]
IPO firm corporate governance variable								
Firm corporate governance	− 0.07***	− 0.09***	− 0.10***	− 0.09***	− 0.07***	− 0.07***	− 0.07***	− 0.07***
	[− 8.43]	[− 10.1]	[− 11.5]	[− 4.08]	[− 12.4]	[− 3.85]	[− 8.90]	[− 7.09]
Macroeconomic variables								
Inflows of foreign direct investment	0.01	0.05***	0.08***	0.02	0.02**	0.01	0.02	0.02
	[0.45]	[3.11]	[5.38]	[0.64]	[1.80]	[0.66]	[1.15]	[0.57]
Interest rate	− 0.01	− 0.01*	0.01	− 0.01	− 0.01**	− 0.01**	− 0.01**	− 0.01
	[− 0.36]	[− 1.67]	[0.74]	[− 0.91]	[− 1.72]	[− 1.92]	[− 1.96]	[− 1.02]
Growth of gross domestic product	0.03**	0.05***	0.01	− 0.06*	0.02**	0.01	0.01	0.01
	[2.47]	[4.33]	[0.38]	[− 1.57]	[1.96]	[0.68]	[1.12]	[0.50]
Inflation rate	0.05***	0.13***	0.09***	0.22***	0.07***	0.06***	0.06***	0.06***
	[4.97]	[9.57]	[4.75]	[4.54]	[7.47]	[3.89]	[6.81]	[2.41]
Legal origin variables								
English common law origin	0.13*	− 0.06	− 0.06	− 0.02	0.21***	0.05***	0.05***	0.05***
	[1.51]	[− 0.81]	[− 0.58]	[− 1.10]	[3.34]	[3.90]	[9.47]	[3.07]
French civil law origin	0.08***	0.02**	0.06***	0.02	0.06***	0.05***	0.06***	0.05**
	[10.5]	[2.43]	[5.90]	[1.31]	[10.1]	[5.30]	[5.64]	[2.12]

Table 9 (continued)

Variables	Model 16	Model 17	Model 18	Model 19	Model 20	Model 21	Model 22	Model 23
Industry dummy	YES	YES	YES	YES	YES	YES	YES	YES
Year dummy	YES	YES	YES	YES	YES	YES	YES	YES
Country dummy	YES	YES	YES	YES	YES	YES	YES	YES
Constant	− 1.21***	− 2.55***	− 2.22***	− 0.70	− 1.97***	− 3.53***	− 3.53***	− 3.53***
	[− 4.09]	[− 7.51]	[− 6.01]	[− 0.86]	[− 8.81]	[− 15.4]	[− 17.3]	[− 12.9]
Observations	12,522	11,376	11,771	2793	20,902	24,312	24,312	24,312
R squared	0.31	0.40	0.40	0.43	0.32	0.32	0.32	0.32
Number of clusters						24	13	22

Variables	Model 24	Model 25	Model 26	Model 27	Model 28	Model 29
Main variable						
Prestigious attorney	− 0.12***	− 0.50***	− 0.14***	− 0.24***	− 0.21***	− 0.189***
	[− 4.49]	[− 13.7]	[− 5.25]	[− 6.54]	[− 5.90]	[− 4.80]
IPO firm-specific variables						
Reputable underwriters	0.045**					
	[2.07]					
IPO capital sold	− 0.011***	− 0.0078***	− 0.0096***	− 0.013***	− 0.012***	− 0.0119***
	[− 16.1]	[− 8.68]	[− 15.9]	[− 12.5]	[− 12.6]	[− 11.40]
Technology firm	− 0.33***	0.025	− 0.30***	− 0.37***	− 0.28***	− 0.301***
	[− 8.81]	[0.74]	[− 7.55]	[− 7.61]	[− 6.04]	[− 4.44]
Integer offer price	1.12***	0.33***	1.23***	1.09***	1.02***	1.105***
	[35.5]	[12.6]	[35.8]	[23.8]	[25.2]	[15.2]
Above range offer price	− 1.41***	− 0.76***	− 1.45***	− 1.96***	− 1.94***	− 2.143***
	[− 9.11]	[− 8.68]	[− 9.27]	[− 7.20]	[− 7.17]	[− 8.27]
Size of offering	− 0.001	− 0.002***	− 0.001**	− 0.001	0.001	0.001
	[− 0.81]	[− 4.69]	[− 2.26]	[− 0.097]	[0.46]	[0.56]
Ratio of institutional participation	− 0.001	0.025	− 0.001**	− 2.17***	− 0.92***	− 1.752***
	[− 0.88]	[0.74]	[− 2.03]	[− 5.17]	[− 3.95]	[− 4.85]
Ratio of retail participation					− 0.67***	
					[− 4.33]	
Gross spread					− 0.0031**	
					[− 2.14]	
IPO market-specific variables						
Hot IPO market	0.039*	− 0.21***	0.11***	− 0.061**	− 0.065***	− 0.0689***
	[1.76]	[− 10.4]	[4.59]	[− 2.14]	[− 2.42]	[− 3.95]
Volume of IPO listing	− 0.002***	0.001**	− 0.001***	− 0.0022***	− 0.0021***	− 0.00212***
	[− 29.4]	[2.44]	[− 21.5]	[− 25.8]	[− 26.6]	[− 13.05]
IPO discount	− 0.015***	0.011***	− 0.015***	− 0.011***	− 0.012***	− 0.014***
	[− 42.6]	[42.2]	[− 27.5]	[− 26.8]	[− 30.4]	[− 10.4]
IPO regulatory changes						0.0381
						[0.96]
IPO firm accounting variables						
Financial leverage	0.001*	0.001*	0.001	0.001	0.001	0.001*
	[1.79]	[1.69]	[0.61]	[0.30]	[0.60]	[1.70]
Profitability	0.001	0.001**	0.001*	0.001	0.001	0.001
	[0.86]	[1.99]	[1.45]	[1.00]	[1.05]	[1.15]
Performance	− 0.001	0.001	− 0.001	0.001	0.001	0.001
	[− 0.37]	[1.33]	[− 0.51]	[1.22]	[1.31]	[1.21]

Table 9 (continued)

Variables	Model 24	Model 25	Model 26	Model 27	Model 28	Model 29
IPO firm corporate governance variable						
Firm corporate governance	− 0.011***	− 0.001***	− 0.012***	− 0.011***	− 0.010***	− 0.0104***
	[− 17.7]	[− 2.75]	[− 20.1]	[− 14.6]	[− 14.7]	[− 15.71]
Macroeconomic variables						
Inflows of foreign direct investment	0.042***	0.095***	0.060***	0.017**	0.016**	0.0108
	[6.01]	[13.9]	[7.04]	[1.87]	[2.13]	[1.13]
Interest rate	− 0.016***	− 0.002***	− 0.002	− 0.001***	− 0.01***	− 0.0149***
	[− 7.53]	[− 5.23]	[− 0.52]	[− 3.33]	[− 3.86]	[− 4.56]
Growth of gross domestic product	0.015***	0.050***	− 0.12***	0.021***	0.016**	0.00625
	[2.97]	[10.4]	[− 14.3]	[2.68]	[2.39]	[1.19]
Inflation rate	0.036***	0.054***	0.051***	0.070***	0.059***	0.0649***
	[6.86]	[6.78]	[7.66]	[5.23]	[7.47]	[4.37]
Legal origin variables						
English common law origin	0.22***	− 0.14***	0.100	0.63***	0.52***	0.609***
	[8.16]	[− 5.59]	[0.35]	[14.1]	[12.9]	[12.9]
French civil law origin	0.17***	0.97***	0.19	0.59***	0.56***	0.774***
	[3.86]	[26.1]	[0.64]	[10.1]	[10.1]	[10.1]
Industry dummy	YES	YES	YES	YES	YES	YES
Year dummy	YES	YES	YES	YES	YES	YES
Country dummy	YES	YES	YES	YES	YES	YES
Constant	− 2.90***	0.47***	− 2.25***	− 3.71***	− 3.59***	− 3.728***
	[− 47.3]	[9.71]	[− 6.44]	[− 42.6]	[− 44.4]	[− 34.41]
Observations	24,312	24,312	24,312	21,225	24,312	24,312
R squared within countries	0.28	0.32	0.42	0.34	0.33	0.32
R squared between countries	N/A	N/A	0.23	N/A	N/A	N/A

Withdrawn IPOs have a value of 1 if the IPO is withdrawn and 0 otherwise. Prestigious attorneys are classified as a binary variable through categorization. If the IPO company's attorney is among the top 100 worldwide registered law firms by market share in the BNID, this variable is one. Otherwise, it is zero. IPO capital sold refers to the percentage of outstanding shares offered by IPO owners at the time of being offered to new investors. Technology firm is a binary variable that equals one if the issuing corporation is categorized as a technology company; otherwise, it equals zero. Integer offer price is a categorical variable, it has a value of one if the offer price of IPO is an integer and a value of zero otherwise. Above range offer price is a categorical variable equal to a value of one if the IPO's offering amount rises above the underwriter's pricing range and zero otherwise. Size of offering is the total amount of payment received by each IPO company, calculated by multiplying the number of stocks offered by the offer price in US dollars. Ratio of institutional participation is the proportion of institutional investors to total IPO participants, which includes both institutional and retail investors. Hot IPO market is a dichotomous variable with a value of one if this IPO is listed in a year during which the total number of listings exceeds the average number of listings; otherwise, it has a value of 0. The volume of IPO listing calculates the current number of IPOs listed in each country and year. IPO discount is the percentage of the offer price to the IPO's first day closing price. Financial leverage is the company's equity-to-liabilities ratio. It shows the company's offering leverage. Profitability is the ratio of the total dividends distributed to shareholders to net income at the time of the offering. Performance is the initial public offering common equity rate of return. Firm corporate governance is the total number of independent directors registered at the time of offering. Inflows of foreign direct investment is a time series index from 1995 to 2019 that shows net investment inflows as a proportion of the GDP. Interest rate covers the period 1995 through to 2019 and interest charges on government borrowing to local and foreign entities, such as long-term mortgages, securities, and other treasury bonds. Growth of gross domestic product is a 1995–2019 time series index that shows GDP per capita growth. The inflation rate tracks yearly consumer price inflation from 1995 to 2019. English common law origin is a categorical variable that equals one if the IPO is offered in an English common law jurisdiction and zero otherwise. Australia, South Africa, the United Kingdom, and the United States are nations that inherited the English common law tradition. French civil law origin is a categorical variable with a value of 1 if the IPO is being issued in a French civil law jurisdiction and 0 otherwise. France, Brazil, Greece, Italy, Mexico, and Russia are among the nations which inherited the civil law tradition. Robust Z-statistics are heteroscedasticity corrected and indicate ***$p < 0.01$, **$p < 0.05$, and *$p < 0.1$. Model 24 controls for the variable reputable underwriter. Model 25 tests the role of reputable attorneys in communicating more with investors to reduce information asymmetry by having the dependent variable disclosure of IPO proceeds and is explained by the employment of prestigious attorneys. Model 26 tests hierarchical structure of the IPO data using PHLM. Model 27 excludes countries with 100 globally registered IPO law firms that have less than 65% of total market share. Model 28 captures differences across countries in the listing process using ratio of institutional participation, ratio of retail participation, and gross spread. Model 29 takes into account 103 potential regulatory changes that have been identified in the IPO market across the sample countries during the period 1995 to 2019 as shown in Table 10.

Third, in Model 24 of Table 9, we add reputable underwriters to the full model.[4] We have a consistent result, confirming the negative relationship between reputed attorneys' roles and IPO withdrawal risk.

Fourth, we create a unique test that uses the intended use of proceeds[5] as the dependent variable and a reputable attorney as the independent variable, in addition to the traditional controlling variables. This test examines the role of reputable attorneys in communicating with investors to reduce information asymmetry. According to IPO research, the more IPO issuers disclose the intended use of IPO proceeds, the less ex-ante uncertainty investors feel about the offering (Wyatt 2014; Amor and Kooli 2017). This gradually reduces the information asymmetry between IPO companies and potential investors. Traditionally, IPO issuers state the anticipated use of IPO proceeds for repayment of selling shareholders, funding of mergers and acquisitions, research and development, repayment of loans and liabilities, and for other undisclosed purposes labelled as "others" in the IPO prospectus (Leone et al. 2007). The IPO research confirms that not revealing the intended use of IPO proceeds in IPO prospectuses might increase information asymmetry (Amor and Kooli 2017; Ahmad-Zaluki and Badru 2021). Thus, IPO businesses that engage a reputable attorney must conduct high-quality due diligence and reports, resulting in a diminished frequency of listing "other" as the intended use of proceeds in the IPO prospectus. Model 25 of Table 9 examines this hypothesis. We find that when a reputable attorney is involved in the preparation of an IPO prospectus, there is a 50% drop in the number of companies that identify their intended use of IPO proceeds as "other." This results in high-quality IPO reporting and a reduction in information asymmetry between prospective investors and IPO owners.

Fifth, we account for the nesting structure of the IPO data using hierarchical linear Modelling (HLM), following the IPO literature (Engelen and Van Essen 2010; Jamaani and Ahmed 2021, 2022). Engelen and Van Essen (2010) employ the HLM method, arguing that OLS-based models cannot identify IPO data nesting.[6] Researchers blame country-level factors for intercept variability. When the nest intercept terms vary from country to country, the conclusions change. When the intercept differs across the 21 states, researchers discover a link between country-level openness and IPO underpricing. The variations in these 21 countries underpriced the sample by 10%. This sophisticated[7] technique breaks the R^2 of a simple probit regression into one that reflects the IPO business characteristics between countries and within countries. Li et al. (2013) emphasize differentiating company- and nation-level impacts. Using probit hierarchical linear modelling (PHLM), we add the following two stages. In the first stage, we compensate for higher-level (national) data features that may impact base-level data (IPO withdrawal drivers). This implies that error terms within nations possibly function to correlate, as they have comparable national-level features, but across nations, they might not even correlate (Hofmann 1997). In the second stage, we apply the PHLM method to the country-mean-center organizational variables (Enders and Tofighi 2007). This

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[4] We are grateful to the anonymous reviewer for encouraging us to control for the influence of reputable underwriters.

[5] We thank the anonymous reviewer for encouraging us to test for the role of reputable attorneys in communicating more with investors to reduce information asymmetry.

[6] For the mathematical underpinning of HLM analysis, see Hofmann (1997) and Jamaani and Ahmed (2021).

[7] We thank the anonymous reviewer for motivating us to utilize more sophisticated methods.

study attempts to correctly differentiate national-level from company-level IPO withdrawal variations (the impact of prestigious attorneys). Li et al. (2013) demonstrate that by focusing on business risk-taking drivers within nations and incorporating national-level means, the HLM can fully segregate covariances within and between nations. Model 26 in Table 9 confirms the negative link between reputable attorneys and IPO withdrawal risk, even after employing the PHLM estimation.

Sixth, we provide additional testing to consider the countries that have less than 65% of the total local market share of IPO law firms in every country presented in Panel C of Table 4 to eliminate any potential measurement error and biased results of our main independent variable, prestigious attorneys. This results in 3087 observations from five countries: Indonesia, Canada, Mexico, South Africa, and Sweden. Model 27 in Table 9 reports consistent results, indicating that the employment of prestigious lawyers reduces the IPO withdrawal rate by 24%, supporting our previous findings.

Seventh, Ritter (2003) focuses on disparities in IPO listing processes, such as price, allocation, and underwriting fees, claiming that variances between nations might affect information asymmetry in the IPO market and investor risk. The IPO scholars have demonstrated a decline in fixed-price methods and auctions for selling IPOs in Europe and Asia and the dominance of book-building internationally (Biais and Faugeron-Crouzet 2002; Sherman and Titman 2002; Ljungqvist et al. 2003; Banerjee et al. 2011; Boulton et al. 2011, 2017; Marcato et al. 2018). In book-building, however, underwriting banks have more discretion in allocating shares to institutional investors than retail investors in exchange for their true disclosure of their appraisal of market valuation (Benveniste and Spindt 1989). Torstila (2003) and Ljungqvist et al. (2003) provide evidence that European IPOs' underwriting fees are cheaper than those in the United States.

When book-building is used, the costs, known as the gross spread, are higher than when auctions or fixed-price offers are employed. Torstila (2003) and Ljungqvist et al. (2003) find that compared to their counterparts in Europe and Asia, the US underwriting banks are likely to increase the offer price if there is considerable demand, which is advantageous for the issuer. We control for differences across countries with reference to IPO listing processes in Model 28 in Table 9 by including institutional and retail investors in the subscription ratio and gross spread. The model consistently demonstrates that hiring prominent attorneys decreases the IPO withdrawal rate by 21%, providing substantial support for our earlier findings. Finally, our study incorporates the major changes in IPO regulations[8] across the countries included in our sample. Table 10 indicates that from 1995 to 2019, 103 potential regulatory changes were identified in the IPO market worldwide. These changes might have impacted the decision to withdraw from the IPO process. This is implemented to ensure the robustness of our conclusions. Model 29 of Table 9 provides consistent results after accounting for prospective significant IPO regulatory changes, confirming that employing renowned attorneys reduces IPO withdrawals by approximately 19% across the entire IPO market.

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[8] We are grateful to the anonymous reviewer for advising us to account for the influence of prospective significant regulatory changes in the IPO market as these could affect the withdrawal decision.

Table 10 Regulatory changes may affect the IPO market

Country	IPO regulatory changes	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Australia	5	0	0	0	0	0	0	1	0	0	0	0	1
Brazil	4	0	0	0	0	0	1	0	1	0	0	0	0
Canada	5	0	0	0	0	1	0	0	0	0	0	0	0
China	3	0	0	0	0	0	0	0	0	0	0	0	0
Denmark	6	0	0	0	0	0	0	0	0	1	0	1	0
France	8	1	0	0	0	0	0	1	0	1	0	1	0
Germany	3	0	0	0	0	0	0	0	0	0	0	1	0
Greece	6	0	0	0	0	1	0	0	0	0	0	1	0
India	3	0	0	0	0	0	0	0	0	1	0	0	0
Indonesia	6	0	0	0	0	0	0	0	0	0	0	0	0
Italy	6	0	0	1	0	0	0	0	0	0	1	1	0
Japan	4	0	0	0	0	0	0	0	0	0	0	0	0
Mexico	4	0	0	0	0	0	0	0	0	0	0	0	1
Poland	4	0	0	0	0	0	0	0	0	0	0	1	0
Russia	4	0	0	0	0	0	0	0	1	0	0	0	0
Saudi Arabia	5	0	0	0	0	0	0	0	0	0	0	0	0
South Africa	6	0	0	0	1	0	0	0	1	1	0	0	0
South Korea	3	0	0	0	0	0	0	0	0	0	0	1	0
Sweden	5	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	3	0	0	0	0	0	0	0	0	0	1	0	0
United Kingdom	5	0	1	0	0	0	0	0	0	0	0	1	0
United States	5	0	0	0	0	0	0	0	0	1	0	0	0
Total	103	1	1	1	1	2	1	2	3	5	2	8	2

Country	IPO regulatory changes	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Australia	5	1	0	0	0	0	1	0	0	0	0	1	0	0
Brazil	4	0	0	0	0	0	1	0	0	0	0	1	0	0

Table 10 (continued)

Country	IPO regulatory changes	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Canada	5	0	0	1	0	0	0	1	0	1	0	1	0	0
China	3	0	0	1	0	0	1	0	0	0	0	0	0	1
Denmark	6	1	0	0	0	0	0	0	1	1	1	0	0	1
France	8	0	0	0	0	1	1	0	0	1	0	0	0	1
Germany	3	0	0	0	0	0	1	0	0	1	0	0	0	0
Greece	6	0	0	1	0	0	1	0	0	0	1	0	0	1
India	3	0	0	0	1	0	0	0	0	0	0	0	0	1
Indonesia	6	0	0	0	0	1	0	0	1	1	0	1	1	1
Italy	6	1	0	0	0	0	1	0	0	1	0	0	0	0
Japan	4	1	0	0	0	0	0	0	1	1	0	0	0	0
Mexico	4	0	0	0	0	0	1	1	1	0	0	0	1	0
Poland	4	0	0	0	0	0	1	0	0	0	0	0	1	1
Russia	4	0	0	0	0	1	0	1	0	0	0	0	1	0
Saudi Arabia	5	0	0	0	0	0	0	1	0	1	1	1	1	0
South Africa	6	0	1	1	0	0	1	0	0	0	0	0	0	0
South Korea	3	0	0	1	0	0	0	0	0	0	1	1	0	0
Sweden	5	0	1	0	0	0	1	1	0	0	0	0	0	1
Turkey	3	0	0	0	0	0	0	0	1	1	0	0	0	1
United Kingdom	5	0	0	0	1	1	1	0	0	1	0	0	0	1
United States	5	0	0	0	0	0	1	0	0	0	1	0	0	0
Total	103	4	2	5	2	3	13	4	5	10	3	6	5	11

A summary table has been presented, which outlines 103 potential regulatory changes that have taken place in the IPO market across the sample countries between 1995 and 2019. The table comprises 18 pages in length and a publicly accessible open-source link has been established for storing the file: https://www.dropbox.com/scl/fi/qlowtc7ty78r2n7dvah8z/Regulatory-Changes-may-affect-the-IPO-market.docx?dl=0&rlkey=jyzhrxuwy6d4s6qgj9on23fzw

Conclusion

This study examines the relationship between reputable attorneys and IPO withdrawal using a large cross-country sample. As expected, the use of prominent lawyers certifies the integrity of the confidential information to investors. The presence of these top-quality attorneys in an IPO prospectus is likely to reduce IPO participants' ex-ante uncertainty, easing the information asymmetry problem and IPO withdrawal. These results hold when we account for differences between developed and developing stock markets, formal and informal institutional quality, firm-level specifications, and econometric considerations. The IPO entrepreneurs, investors, researchers, and policymakers may benefit from the findings of this study.

Employing top attorneys before an IPO offers a certification signal that mitigates ex-ante concerns among IPO investors, which in turn reduces the risk of IPO withdrawal. The owners of IPO enterprises should be confident that this is the case before they go public. Conversely, investors in IPOs may obtain knowledge on refraining from acquiring shares from IPOs that employ poor solicitors; and be well-informed about such companies. This is because capital invested in such an IPO is likely to be refunded owing to the expected withdrawal risk. The investment would be unproductive if investors lock their assets for a certain period in a company that eventually withdraws. To the best of our knowledge, this study is the first conclusive evidence of a strong negative relationship between the engagement of renowned lawyers and lower withdrawal risk for IPO firms. Our findings, which demonstrate the significance of ensuring that legal companies act in clients' best interests when handling IPO filings, are useful for stock market regulators. In the IPO industry, renowned attorneys may help reduce the risk of withdrawal, which may motivate new IPO owners to list their companies in the equity market, thereby enhancing economic growth.

Abbreviations

IPOs	Initial public offerings
US	United States
UK	United Kingdom
REITs	Real estate investment trusts
ADRs	American Depositary Receipts
HLM	Hierarchical linear modelling
PHLM	Probit hierarchical linear modelling
BNID	Bloomberg New Issue Database
BLAL	Bloomberg Legal Adviser League
TWB	The World Bank

Author contributions

This is a coauthored paper. The corresponding author is Dr. Fouad Jamaani and second author is Dr Mnal Alidarous. Dr. Fouad Jamaani compiled the initial data set, analyzed the empirical results, and composed the methodology, discussion, and hypothesis sections. Dr. Manal Alidarous gathered the supplementary data set, composed the contribution, introduction, robustness test, and conclusion sections.

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