

How do Founder Status and Institutional Investors Enhance the Effect of Internationalization on IPO Wealth?

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Abstract

Previous research has indicated that internationalization can reduce underpricing. To enrich its effect, this study extended the examination to the three-way interaction effects of internationalization, founder status, and institutional investors on IPO underpricing. The data from 92 Thai IPOs from 2013 to 2021 were collected and Hayes's regression-based analysis was used to analyze moderated moderation. Founder status and the proportion of institutional investors were taken as the moderators to explain the mechanism of the effect of internationalization on underpricing. The key findings show that internationalization decreased underpricing, and became stronger in non-founder CEO firms. However, internationalization increased underpricing and became stronger in founder-CEO firms. Moreover, this two-way interaction was stronger when it was moderated by institutional investors. In the cases of the low and moderate levels of institutional investors, the effects of internationalization on underpricing became more negative in firms with a non-founder CEO, but more positive in firms with a founder CEO. The effects of internationalization on underpricing depended upon the founder's status and the level of institutional investors. Thus, internationalization, a non-founder CEO, and the low and moderate levels of institutional investors can increase IPO wealth by lowering the IPO underpricing.

Keywords: IPO wealth; internationalization; founder status; institutional investor; three-way interaction

Introduction

The wealth created by IPO issuance is the important goal of the entrepreneurial process to go public. Selling IPO shares represents the realization of the firm wealth from primary market. If the offered IPO price sold in the primary market increases at first day trading in the secondary market, "underpricing" as a phenomenon in IPO issuance occurs, and new shareholders tend to obtain more benefits than initial shareholders. The wealth of IPO that accrues to underpricing represents the initial returns from IPO shares for the investors. On the other hand, it represents the decrease in wealth of issuer since underpricing is an indirect cost, known as money left on the table (Loughran & Ritter, 2002).

For issuing firms, there are incentives to reduce underpricing. In fact, underpricing represents a wealth transfer from the issuing firm to investors to obtain an increase in initial returns. It was found that the high degree of underpricing reflects a decrease in the wealth of IPO issuing firms, while the low degree of underpricing reflects less asymmetric information, and lower cost of IPO issuing (Lucas & McDonald, 1990).

Generally, underpricing is caused by asymmetric information and motivations for going public. This issue can be clarified by asymmetric information, along with the impacts of firm characteristics on IPO performance (Certo, Holcomb & Holmes Jr, 2009; Ozdemir & Upneja, 2016). Unlike the firm itself, investors possess limited knowledge relevant to the issuing firms, which leads to asymmetric information and increases risk exposure in IPO investment. Thus, the investors demand higher initial returns to compensate such risk. In this study, it is recommended that the internationalization of issuing firms can serve as a quality signal at an IPO process to reduce IPO underpricing (Kongkaew, Tongkong & Ngudgratoke, 2021; Ozdemir & Upneja, 2016). In other words, internationalization benefits firm activities in terms of foreign markets, low-cost resources, knowledge about market and competition (Oviatt & McDougall, 1994) and diversification from trading internationally. In contrast, a higher degree of internationalization is positively related to underpricing (LiPuma, 2012) since underpricing is valued by investors who expect initial returns from international strategy due to agency problem. IPO investors tend to take internationalization into account since agency costs lead to an increase in effective monitoring in firms with a high degree of internationalization. The view of effect of internationalization on IPO underpricing may be both positive and negative. Hence, a strong level of internationalization might not affect IPO underpricing in the same direction.

This study attempts to identify the boundary conditions of the IPO underpricing relevant to corporate governance since corporate governance of the board and chief executive officer (CEO) of an IPO firm powerfully enhances the investors' confidence to invest in IPOs and supports long-term investment. Interestingly, board structure impacts post-IPO performance and decreases information asymmetry, which is consistent with agency problem (Certo et al., 2009). In addition, certain findings revealed that board structure and ownership structure are associated with IPO underpricing, which is supported by signaling theory according to Darmadi and Gunawan (2013). This study indicated that founder status and institutional investors are the hidden variables amongst the effect of internationalization and IPO underpricing.

The findings can reveal how internationalization enhances successful IPO management with a clear understanding of the effect of internationalization on IPO underpricing for newly listed companies, and also explain the mechanism of internationalization and how it supports newly listed companies to financing success. Issuers can use internationalization, CEO and institutional investor allocation to promote their quality. Moreover, stakeholders, such as individual and foreign investors, institutional investors and underwriters can use the results of this research to analyze and make an investment decision during IPO events.

Objectives

1. To examine the moderating effect of founder status on the effect of the degree of internationalization on IPO underpricing.
2. To investigate whether the proportion of institutional investors moderates the two-way interaction effect of founder status and the degree of internationalization on IPO underpricing.

Scope of study

Scope of Content; This study only focuses on the underpricing of IPOs.

Scope of Populations; The population were companies listed on the Stock Exchange of Thailand (SET) and the Market for Alternative Investment (mai) with internationalization and IPO underpricing

Scope of Time; The IPOs were issued from January 2013 to June 2021.

Literature Review

Effect of Internationalization on IPO Underpricing

In this study, the internationalization of issuing firms was used as a quality signal at an IPO issuance with the estimation that internationalization would impact IPO underpricing. With internationalization, the firms can expand their business activities to foreign markets and access low-cost resources. International firms are able to learn about markets, competition through international trade (Oviatt & McDougall, 1994), and diversification by trading internationally to increase firm value.

Several studies on internationalization and IPO underpricing revealed that internationalization is considered as a good signal to attract potential investors. With internationalization, the IPO is certified as a quality investment due to lower information asymmetry. The key reason is that internationalization decreases underpricing, as well as the money international firms leave on the table (LiPuma, 2012; Ozdemir & Upneja, 2016; Peng et al., 2021). In contrast, Al-Shammari, Ross O'Brien and Hamed AlBusaidi (2013) found that a higher degree of internationalization can increase underpricing since valued investors expect initial returns from international strategy. However, this study assumes that a good signal can reduce information asymmetry problem. Thus, the hypothesis is as follows:

Hypothesis 1 (H1). The effect of internationalization on IPO underpricing is negative.

Moderating Effect of Founder Status

Corporate governance which consists of board mechanism and ownership structure impact the reactions of IPO investors. This can be explained by asymmetric information between the issuing firm and investors. In other words, the firms with transparency corporate governance can reduce agency problems and asymmetric information, and also attract investors to invest in their IPOs according to signaling and principal-agent theories.

The study of Nelson (2003) found that founder CEO impacts the performance of IPO since the founder CEO has the abilities to lead the firm to grow and achieve the goal. In other words, the success of the firm has been established from its foundation. According to Certo, Covin, Daily and Dalton (2001), the founder-led firms are subject to greater underpricing, while certain researchers suggested that agency problem is low in non-founder led firms. Interestingly, in case the founder concentrates on monitoring and controlling the management, the conflict of interest between founder and CEO tend to decrease (Gao & Jain, 2011). Thus, the hypothesis is as follows:

Hypothesis 2 (H2). When the effect of internationalization on IPO underpricing is moderated by the founder status, the effect of internationalization on IPO underpricing becomes more negative in non-founder CEO firms and more positive in founder CEO firms.

Moderating Effect of Institutional Investors

In line with the adverse selection theory, institutional investors are considered informed investors since they can access the information of issuing firms and the market with the ability to identify the quality of the firms. According to Rock (1986), underpricing is a reward for uninformed investors. IPO market needs the demand from uninformed investors since only informed investors is insufficient for IPO existence. Thus, issuing firms benefit IPO investors with underpricing. Additionally, underpricing is inversely related to institution allocations according to Ljungqvist and Wilhelm Jr. (2002). The underpricing was found if institutional investors are favored.

Obviously, institutional allocation is an important part for the image of firms since institutional investors have experience, expertise, availability in resources, and potential to monitor and protect their interest through their asset management (Velury & Jenkins, 2006). In addition, Hanafi and Setiawan (2018) argued that institutional investors are able to monitor IPO underpricing, which can reduce indirect cost. Thus, the proportion of institutional investors can reduce the degree of IPO underpricing, as well as agency problems (Arthurs, Hoskisson, Busenitz & Johnson, 2008). In contrast, underpricing encourages institutional investors and individual investors to invest in IPOs. In other words, underpricing rewards institutional investors since institutions are capable of monitoring the issuing firm (Stoughton & Zechner, 1998). Besides compensating risks to investors, underpricing is preferred by institutional investors and the companies that want to attract institutional investors.

In case the issuing firm has a high degree of internationalization and professional CEO, underpricing can be less according to signaling and principal-agent theories. In this case, low proportion of institutional investors may influence two-way interaction effect of internationalization and founder status on reducing underpricing. It is estimated that the two-way interaction effect of internationalization and founder status on underpricing will be stronger when the proportion of institutional investors is low. This is because the signal of internationalization and professional CEO can reduce IPO underpricing without the signal of high level of institutional investors indicating the quality of the firm. Thus, the hypothesis is as follows:

Hypothesis 3 (H3). Institutional investors moderate the two-way interaction effect of founder status and internationalization on IPO underpricing, and the effect of internationalization on IPO

underpricing becomes negatively stronger in non-founder CEO firm and positively stronger in founder CEO firm when the proportion of institutional investors is low.

The conceptual framework of the aforementioned theoretical and empirical literature is shown in Figure 1.

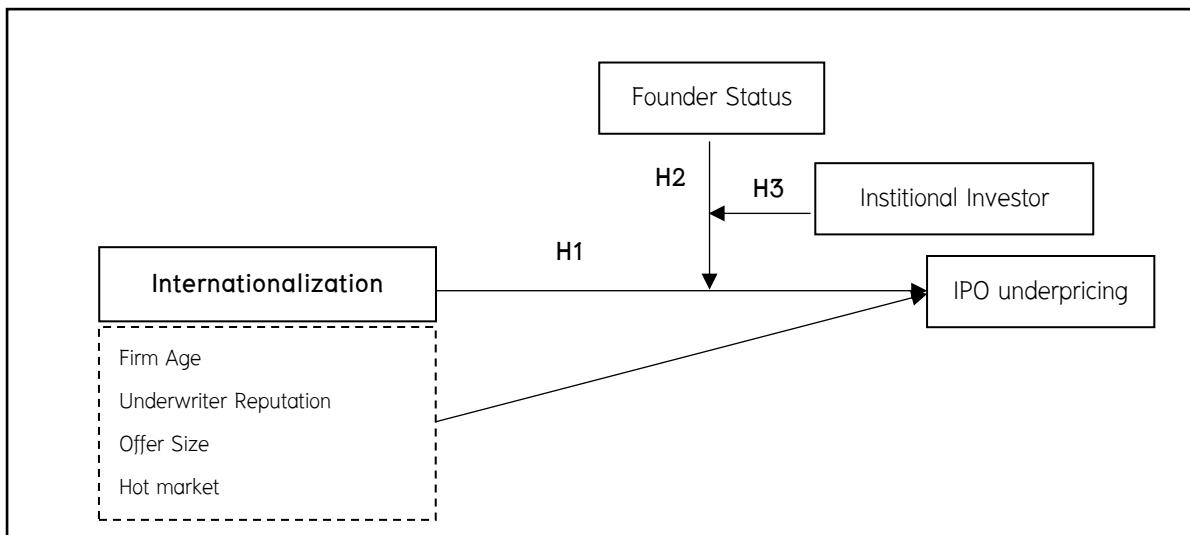


Figure 1. The three-way interaction effect model depicted in the form of the conceptual framework of this study.

Methodology

Data Collection and Sample

The data of IPOs issued from January 2013 to June 2021 were collected. The samples were international firms publicly registered in Thailand with non-financial business. The IPOs with overpricing and missing information were excluded. Thus, the final samples consisted of 92 firms. The primary data sources are reported on IPO prospectuses of issuing firms available on the database of the Securities and Exchange Commission (SEC), information of the IPOs, such as offer price, first-trading price, offer size and first-trading day available on the database of the Securities Exchange of Thailand (SET). Market returns were collected from Bisnews database, while annual reports and information about internationalization were collected from the website of the firms.

Measurement of Variables

Dependent Variable

Underpricing or initial normal return of IPOs is calculated as percentage change from the offer price to the closing price at first-day trading $((\text{closing first day trading} - \text{offer price}) / \text{offer price}) \times 100$. This study also concerns daily stock market movement that affects IPO returns by

measuring the market adjusted underpricing (Kongkaew et al., 2021). Underpricing in this study is defined by Equation (1) as follows:

$$\text{Underpricing}_{i,t} = R_{i,t} - R_{m,t} \quad (1)$$

Where $\text{Underpricing}_{i,t}$ is the initial normal return of IPO shares ($R_{i,t}$) at the time “ t ” of stock “ i ” minus the market return of corresponding stock index at the same time of stock “ i ” ($R_{m,t}$).

Independent Variable

The degree of internationalization (DOI) measured by the ratio of foreign sales to total sales (FSTS), which is consistent with prior research (Ozdemir & Upneja, 2016). There are two indicators to measure DOI: the proportion of foreign sales to total sales and oversea subsidiaries to total subsidiaries.

Moderator Variables

In this study, founder CEO status was a primary moderator. A value of one is given to the firm with a founder CEO, and a value of zero is given to the firm with a non-founder CEO. The proportion of IPOs allocated to institutional investors was taken as the secondary moderator to test the effect of internationalization on underpricing.

Control Variables

The empirical model in this study includes several control factors that influence initial returns. Firm age, underwriter reputation, offer size and hot market were included as the control variables. Firm age was measured by the difference between the founding year and IPO year of the firm. Underwriter reputation as a subsidiary of a bank with a solid foundation and a well-established reputation can provide underwriting services that are strongly supported by facilities available throughout the bank group. Therefore, a dummy variable whether the underwriter is a subsidiary of a bank or not (subsidiary of bank=1, non–subsidiary of bank= 0) is used in this study. Offer size presented by the IPO funding is measured by the total amount of proceeds earned at IPO event as the produce of the offer price and the number of shares sold in the offering. Hot market is a period of time with higher initial returns and greater volume of issuers or companies going public (Lowry, Michaely & Volkova, 2017). Vithessonthi (2014) defined hot market in the Stock Exchange of Thailand as initial returns that are greater than 10%. Thus, 2014 is considered as a hot market, and the year is classified as a control variable, which is a binary variable (1 = IPO issued in 2014, 0 = others).

Regression Model and Research Framework

In this regression model, underpricing is a dependent variable, internationalization is an independent variable, founder status is a primary moderator, and institutional investors are a secondary moderator. The control variables consist of firm age, underwriter reputation, offer size, and hot market. To examine the effect of internationalization on IPO underpricing, the model is constructed as follows:

$$\text{Underpricing} = \beta_0 + \beta_1 \text{Internationalization} + \beta_2 \text{Firm age} + \beta_3 \text{Underwriter reputation} + \beta_4 \text{Offer size} + \beta_5 \text{Hot market} + \epsilon \quad (2)$$

In Equations (2), β_1 is used to measure the effect of internationalization on IPO underpricing to test H1.

To examine the two-way interaction effect of internationalization and founder status on IPO underpricing, the model is constructed as follows:

$$\text{Underpricing} = \alpha_0 + \alpha_1 \text{Internationalization} + \alpha_2 \text{Founder CEO} + \alpha_3 (\text{Internationalization} \times \text{Founder CEO}) + \alpha_4 \text{Firm age} + \alpha_5 \text{Underwriter reputation} + \alpha_6 \text{Offer size} + \alpha_7 \text{Hot market} + \epsilon \quad (3)$$

In Equations (3), α_3 is used to measure the moderating effect of internationalization on IPO underpricing by founder status to test H2.

To examine how institutional investors moderate the two-way interaction effect of internationalization and founder status on IPO underpricing, the model is constructed as follows:

$$\text{Underpricing} = \gamma_0 + \gamma_1 \text{Internationalization} + \gamma_2 \text{Founder CEO} + \gamma_3 \text{Institutional investors} + \gamma_4 (\text{Internationalization} \times \text{Founder CEO}) + \gamma_5 (\text{Internationalization} \times \text{Institutional investors}) + \gamma_6 (\text{Institutional investors} \times \text{Founder CEO}) + \gamma_7 (\text{Internationalization} \times \text{Founder CEO} \times \text{Institutional investors}) + \gamma_8 \text{Firm age} + \gamma_9 \text{Underwriter reputation} + \gamma_{10} \text{Offer size} + \gamma_{11} \text{Hot market} + \epsilon \quad (4)$$

In Equations (4), γ_7 is used to measure the moderating effect of three-way interaction between internationalization, founder status and institutional investors on IPO underpricing to test H3.

Multiple regression analysis was performed in SPSS. Additionally, PROCESS macro for SPSS written by Hayes (2012) was used in this study in order to interpret the conditional moderation effect to test H2 and H3. PROCESS was used to calculate the products estimated by the best fitting OLS

regression model and probe the interaction effects. The pick-a-point approach was implemented to explain the interaction effect.

Results

Correlation Matrix and Multicollinearity

Table 1 presents the summary statistics of the variables used in regression models. The average underpricing of 92 international firms in Thailand going public from 2013 to 2021 was 56.66%. The average degree of internationalization was 35.15%. There were 71 founder CEO firms, and 21 non-founder CEO firms. The average of IPOs allocated to institutional investors was 21.23%. The average firm age was 20 at the time of IPOs, and 38 newly listed firms had a subsidiary bank as their underwriter. The IPO firms raised 2,241.06 million baht as average. Additionally, this table not only provides the correlation coefficients among independent variables, moderator variables, and control variables, especially continuous variables, but also shows the frequency of dummy variables. However, none of the independent, moderator and control variables had correlation coefficient greater than 0.8. Thus, there was no multicollinearity in the multiple linear regression model. High pairwise correlation was sufficient, but not a necessary condition for the existence of the multicollinearity (Shantha Kumari, 2008). Furthermore, variance inflation factors (VIF) presented in Table 2 show the accept range, VIF< 10 (Lieberman & Morris, 2014). According to Hayes (2017), standardization of variables reduces multicollinearity (VIF is smaller), and has no effect on the interaction test. Thus, the results show the regression coefficients in standardized form.

Table 1 Mean, standard deviations and correlations among all variables.

Variables	Frequency	Mean	SD	1	2	3	4	5
1. Underpricing		56.66	54.02	1.00				
2. Internationalization		35.15	32.40	0.13	1.00			
3. Institution investors		21.23	20.76	-0.26*	0.01	1.00		
4. Firm age		19.13	11.57	-0.18	0.02	0.24*	1.00	
5. Offer size		2,241.06	6,122.82	-0.41**	-0.09	0.73**	0.24*	1.00
6. Founder status								
Founder CEO		71						
Non-founder CEO		21						
7. Underwriter reputation								
Subsidiary of bank		38						
Non subsidiary of bank		54						

Notes: Significant at *p= 0.10, **p= 0.05 and *** =0.01; n = 92

Regression Analysis Results

For Hypothesis 1 presenting the effects of control variables: firm age, underwriter reputation, offer size, and hot market on underpricing was shown in Model 1 in table 2. The result reveals that the underwriter, which is a subsidiary of the bank, has a statistically significant reduction in IPO underpricing since reputable underwriters have to maintain the quality of IPOs by valuing IPOs close to the intrinsic price to save the money left on the table and increase wealth to entrepreneurs. However, hot market is significant since it increased the underpricing level. When internationalization was added to Model 2 in table 2, the effect of internationalization, including the effect of the control variables on IPO underpricing became insignificant, and the internationalization could not explain underpricing. Thus, Hypothesis 1 is not supported.

Hypothesis 2 predicts that when the effect of internationalization on IPO underpricing is moderated by the founder status, the effect of internationalization on IPO underpricing becomes more negative in non-founder CEO firms, and more positive in founder CEO firms. The moderating effect with two-way interaction or the interaction term of internationalization and founder CEO was used in Table 2 Model 3. The results indicate that the interaction effect of internationalization and founder CEO on IPO underpricing was positive and significant when the effects of the control variables were included. In addition, the incremental variance explained by the two-way interaction effect was approximately 8%. Thus, Hypothesis 2 is supported.

Table 2 Regression Results.

	Model 1	Model 2	Model 3	Model 4
	Coef.	Coef.	Coef.	Coef.
Intercept	0.18	0.19	0.18	0.15
Internationalization		0.12	-0.49**	-0.79***
Founder CEO			0.03	0.05
Institutional investors				-0.04
<i>Two-way interaction</i>				
Internationalization \times Founder CEO		0.77***	1.08***	
Internationalization \times Institutional investors			0.53**	
Founder CEO \times Institution investor				-0.08
<i>Three-way interaction</i>				
Internationalization \times Founder CEO \times Institutional investors				-0.62**
<i>Control Variables</i>				
Firm age	-0.16	-0.16	-0.13	-0.10
Underwriter reputation	-0.66***	-0.71***	-0.76***	-0.70***
Offer size	0.01	0.03	-0.04	0.05
Hot market	0.51**	0.51**	0.39*	0.30
R2	0.19	0.21	0.29	0.34
VIF	1.01–1.02	1.02–1.11	1.04–5.48	1.10–7.63
F-value	5.14***	4.45***	4.94***	3.85***

Notes: Significant at: *p= 0.10 , **p= 0.05 and *** =0.01; n = 92 for all models; standardized coefficients are reported.

Hypothesis 3 predicts that institutional investors moderate the two-way interaction effect of founder status and internationalization on IPO underpricing, and the effect of internationalization on IPO underpricing becomes negatively stronger in non-founder CEO firm and positively stronger in founder CEO when the proportion of institutional investors is low. Model 4 in Table 2 examined the moderating effect of institutional investors with the three-way interaction. The moderation of internationalization effect on underpricing based on founder status depended on institutional investors when firm age, underwriter reputation, offer size, and hot market were controlled. Interestingly, the regression coefficient for Internationalization \times Founder CEO \times Institutional investor was statistically significant with a three-way interaction among internationalization, founder status, and institutional investors. The incremental variance explained by the three-way interaction effect was approximately 5%. Thus, the magnitude of the interaction effect of internationalization and founder status on IPO underpricing depends on the proportion of institutional investors.

To examine further differences across the six lines displayed in Figure 2, the three panels of the internationalization effect on underpricing in founder CEO firms were compared to non-founder CEO firms with those three levels of institutional investors. The slope line of founder CEO firms is positive, but negative in the case of non-founder CEO firms. The slope reflecting low proportion of the institutional investors in non-founder CEO firms is significantly negative and is the highest slope among all. This reflects the strong effect of internationalization on underpricing in non-founder CEO firms with low proportion of institutional investors. The line with the second inferior slope for moderate proportion of the institutional investors in non-founder CEO firms is significantly negative. The line with the third inferior slope for low proportion of the institutional investors in founder CEO firms is significantly positive. Finally, the slope for moderating proportion of the institutional investors in founder CEO firms is significantly positive. In contrast, the high proportion of institutional investors are statistically insignificant both in founder CEO and non-founder CEO firms, at a level 0.05. Thus, Hypothesis 3 is also partially supported.

In summary, the results reveal that founder status moderated the effects of internationalization on IPO underpricing when the proportion of institutional investors was low and moderate. In order to find the exact proportion of institutional investors that moderate the effect of internationalization and founder status on IPO underpricing, the Johnson–Neyman technique regarding PROCESS macro for SPSS was employed as shown in Table 3. The results indicate that internationalization and founder status had statistically significant effects on IPO underpricing at a level of 0.05 when the proportion of institutional investors were below 39.73%. In contrast, when the proportion of institutional investors was 39.73% or above, institutional investors did not moderate the effect of internationalization and founder status on IPO underpricing at a statistically significant level of 0.05.

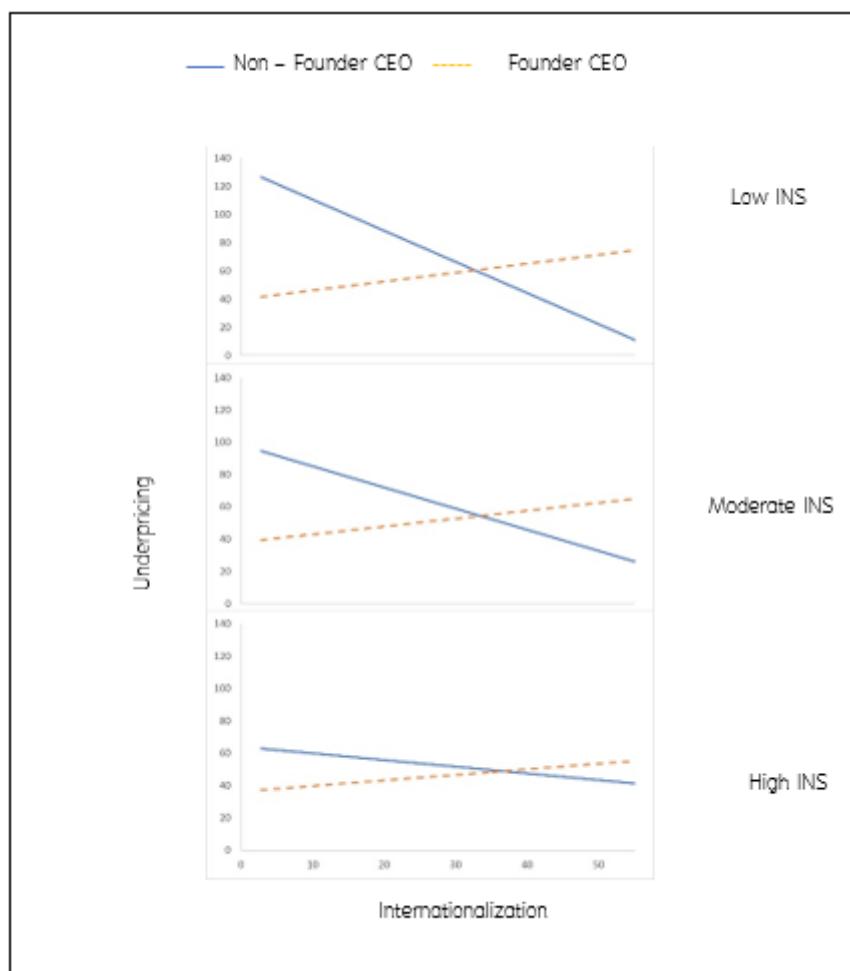


Figure 2. The conditional effect of internationalization on underpricing as a founder status (founder CEO and non-founder CEO), and proportion of institutional investors. The three panels for founder role correspond to the three levels of institutional investors: one standard deviation below the mean (Low), equal to the mean (Moderate) and equal to a standard deviation above the mean (High). INS refers to institutional investors.

Table 3 Moderator values defining Johnson–Neyman significance regions: Conditional Internationalization×Founder status at levels of the proportion of institutional investors.

Institutional Investors	Effect	se	t	p	LLCI	ULCI
36.13%	0.6357	0.2507	2.5358	0.0132	0.1368	1.1347
39.42%	0.5382	0.2643	2.0364	0.0450	0.0123	1.0641
39.73%	0.5291	0.2659	1.9901	0.0500	0.0000	1.0581
42.70%	0.4407	0.2834	1.5550	0.1239	-0.1233	1.0046
45.99%	0.3431	0.3070	1.1178	0.2670	-0.2678	0.9540

Source: Output from the PROCESS macro by Hayes (2012), procedure for the conditional effect of internationalization and founder status on IPO underpricing at level of institutional investors.

Discussion

Even though several studies found that internationalization increases IPO underpricing since the investors expect initial returns from international firms, the effect of internationalization on IPO underpricing was found to be insignificant in this study. Moreover, internationalization alone does not affect IPO underpricing, which is in line with Kongkaew et al. (2021). Interestingly, the findings of this study indicate that the effects of internationalization on IPO underpricing depend on founder status. Such effects are significantly different between firms with a founder CEO and a non-founder CEO. The results are consistent with signaling theory and principal–agent theory. According to signaling theory, internationalization is a quality signal of firm characteristics due to lower information asymmetry. Issuer can offer the IPO price with a small discount or small initial returns to attract potential investors. Hence, the degree of internationalization can decrease underpricing, and international firms can save the money left on the table (Kongkaew et al., 2021; Ozdemir & Upneja, 2016; Peng et al., 2021). According to principal–agent theory, a non-founder CEO works more professionally than a founder CEO, which leads to a better firm performance. The hired CEO working as a manager can work with full capacity and enhances the founder's effectiveness of controlling and monitoring, which reduces the conflict-of-interest problems between the founder and the management team. As a result, good corporate governance enhances the firm value and increases wealth during post-IPO performance (Gao & Jain, 2011). Thus, the interaction of internationalization and non-founder CEO reduces IPO underpricing.

In contrast, a positive effect of internationalization and a founder CEO on IPO underpricing were found in the study. In other words, internationalization can also increase IPO underpricing in founder CEO firms. The result is supported by principal–agent theory and signaling theory which confirms that internationalization is an advantage in the investors' perspective and provides initial returns to investors due to underpricing. Additionally, internationalization increases IPO underpricing more in founder CEO firms since the CEO can also monitor the entire process. As a result, it is necessary that firms compensate higher risks from asymmetric information between the issuer and investors, which is in line with Hsieh, Chen and Tsai (2017). Thus, the internationalization decreases underpricing and becomes stronger in non-founder CEO firms, but increases underpricing and becomes stronger in founder CEO firms.

Moreover, the findings show that founder status can moderate the effect of the internationalization on IPO underpricing when the proportion of institutional investors is lower than

39.73%. The phenomenon that the level of institutional investors increases the negative effect of internationalization on IPO underpricing in non-founder CEO firms is due to the fact that institutional investors are informed investors who value the stocks based on fundamental analysis and are highly competent in assessing the quality of a firm. Therefore, stocks in the institutional investor's portfolio are priced appropriately for long-term investments and deemed to be good stocks.

On the other hand, the effect of internationalization on IPO underpricing becomes more significantly positive in the low proportion of institutional investors than the moderate level of institutional investors in founder-CEO firms. This phenomenon can be explained that a founder CEO firm and the low level of IPO shares allocated to institutional investors signaled lower quality of an IPO firm. The issuing firm compensate these issues by lowering the offer price resulting in high underpricing to reward investors with the greater initial returns. Thus, a low level of IPO shares allocated to institutional investors leads to more underpricing compared to a moderate level of institutional investors. Thus, in founder-CEO firms, IPO wealth significantly increases IPO shares allocated to institutional investors from low to moderate level, up to the proportion of 39.73%.

Conclusions

Founder status and institutional investors enhance IPO wealth for entrepreneur and newly listed firms attempt to be successful in IPO issuing by increasing IPO wealth. The findings of this study present that internationalization alone does not affect IPO underpricing, but the interaction between internationalization and founder role affect IPO underpricing. Moreover, institutional investors can moderate the two-ways interaction effect of founder status and internationalization on IPO underpricing when the proportion of institutional investors is below 39.73%. Thus, the effect of internationalization on IPO underpricing depends on founder status and institutional investors.

Suggestion

For international firms that wish to increase the IPO wealth, it is necessary to increase equity capital by issuing IPO shares by hiring a professional CEO to perform managerial activities and allocate IPO shares to institutional investors at a moderate level to low level, especially below 39.73%.

For risk-loving individual investors who use an aggressive investment strategy and focus on initial returns at the first trading day from their short-term investments in IPO stocks, it is essential to focus on IPO shares of issuing firm with high degree of internationalization, a founder CEO, and lower proportion of IPO shares allocated to institutional investors below 39.73%. This type of firms creates high underpricing, resulting in high initial returns despite a high risk in this short-term investment. Conversely, for risk averse individual investors who use conservative investment strategy and intend to invest in IPO shares as a long-term investment, it is best to invest in non-founder CEO firms with a high level of internationalization that allocate IPO shares to institutional investors at a level of close to 39.73%.

Recommendations and Limitations

This study examines the phenomenon of IPO only in Thai stock markets. The guidelines are limited to issuing companies in Thailand, and investors interested in investing in Thai IPOs since this study examines the phenomenon of IPO only in Thai stock markets. The results of this study cannot be applied to IPOs on other stock markets. Thus, further studies should focus on the phenomenon of IPOs in other emerging markets to find the moderating role of founder status and institutional investors in emerging markets. Additionally, a comparative study of IPO phenomena in developed and emerging markets should be a valuable topic of further study.

In addition, this study focuses on IPO wealth for entrepreneurs and short-term IPO performance generated by initial returns on the first trading day. It is recommended that further study focus on long-term IPO performance and highlight how the phenomenon of long-term IPO differs in firms with a founder CEO and a non-founder CEO, and how the proportion of institutional investors affects founder status on IPO performance.

Lastly, IPO phenomenon of domestic firms, as well as small, medium and large-sized firms should also be in focus of future research since this study only focuses on international firms.

Contributions

This study significantly contributes to theoretical literature in two major areas. First, founder status and institutional investors can moderate the effect of internationalization on IPO underpricing. The effect of internationalization on IPO underpricing in non-founder CEO firms is negative, but such effect in founder CEO firms is positive. It is obvious that founder status can change the effect of internationalization on IPO underpricing according to signaling theory and principal-agent theory.

Particularly, a non-founder CEO can reduce the conflict of interest between the founder and the management, and also asymmetric information between issuer and investors. This leads to the negative effect of internationalization on IPO underpricing.

Second, the interaction effect between internationalization and founder status is moderated by institutional investors. The effect of internationalization and a non-founder CEO become more negative when IPO shares allocated to institutional investors are low and moderate levels, especially below 39.73% which corresponds to adverse selection theory.

References

Al-Shammari, H. A., Ross O'Brien, W., & Hamed AlBusaidi, Y. (2013). Firm internationalization and IPO firm performance: The moderating effects of firm ownership structure. *International Journal of Commerce and Management*, 23(3), 242–261.

Arthurs, J. D., Hoskisson, R. E., Busenitz, L. W., & Johnson, R. A. (2008). Managerial agents watching other agents: Multiple agency conflicts regarding underpricing in IPO firms. *Academy of Management Journal*, 51(2), 277–294. <https://doi.org/10.5465/AMJ.2008.31767256>

Boonchuaymetta, E., & Chuanrommanee, W. (2013). Management of the IPO performance in Thailand. *Journal of Multinational Financial Management*, 23(4), 272–284.

Certo, S. T., Covin, J. G., Daily, C. M., & Dalton, D. R. (2001). Wealth and the effects of founder management among IPO-stage new ventures. *Strategic management Journal*, 22(6–7), 641–658.

Certo, S. T., Holcomb, T. R., & Holmes Jr, R. M. (2009). IPO research in management and entrepreneurship: Moving the agenda forward. *Journal of management*, 35(6), 1340–1378.

Darmadi, S., & Gunawan, R. (2013). Underpricing, board structure, and ownership: An empirical examination of Indonesian IPO firms. *Managerial Finance*, 39(2), 181–200. <https://doi.org/10.1108/03074351311294016>

Hayes, F.A. (2017). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. The Guilford Press.

Gao, N., & Jain, B. A. (2011). Founder CEO management and the long-run investment performance of IPO firms. *Journal of Banking & Finance*, 35(7), 1669–1682.

DOI: <https://doi.org/10.1016/j.jbankfin.2010.11.008>

Hanafi, M. M., & Setiawan, A. (2018). Ownership concentration, institutional ownership, and IPO underpricing: evidence from Indonesia Stock Exchange. *International Journal Of Governance and Financial Intermediation*, 1(1), 3–17.

Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling. In United States: University of Kansas, KS.

Hsieh, T.-J., Chen, Y.-J., & Tsai, H.-C. (2017). Business Group Internationalization, Family Control and IPO Underpricing. *Management Review*, 36, 117–136.

Kongkaew, T., Tongkong, S., & Ngudgratoke, S. (2021). Moderating Effects of Founders' Role on the Influence of Internationalization on IPO Performance of Listed Companies in Thailand. *International Journal of Financial Studies*, 9(3). DOI: 10.3390/ijfs9030037

Lieberman, M. G., & Morris, J. D. (2014). The precise effect of multicollinearity on classification prediction. *Multiple Linear Regression Viewpoints*, 40(1), 5–10. http://www.glmj.org/archives/articles/Lieberman_v40n1.pdf

LiPuma, J. A. (2012). Internationalization and the IPO performance of new ventures. *Journal of Business Research*, 65(7), 914–921. doi:<https://doi.org/10.1016/j.jbusres.2011.05.007>

Ljungqvist, A. P., & Wilhelm Jr, W. J. (2002). IPO allocations: Discriminatory or discretionary?. *Journal of Financial Economics*, 65(2), 167–201.

Loughran, T., & Ritter, J. R. (2002). Why don't issuers get upset about leaving money on the table in IPOs?. *The Review of Financial Studies*, 15(2), 413–444. DOI:10.2139/ssrn.243145

Lowry, M., Michaely, R., & Volkova, E. (2017). Initial public offerings: A synthesis of the literature and directions for future research. *Foundations and Trends® in Finance*, 11(3–4), 154–320. <http://dx.doi.org/10.1561/0500000050>

Lucas, D. J., & McDonald, R. L. (1990). Equity issues and stock price dynamics. *The journal of finance*, 45(4), 1019–1043. <https://doi.org/10.2307/2328713>

Nelson, T. (2003). The persistence of founder influence: Management, ownership, and performance effects at initial public offering. *Strategic management journal*, 24(8), 707–724.

Oviatt, B. M., & McDougall, P. P. (1994). Toward a theory of international new ventures. *Journal of international business studies*, 25(1), 45–64.

Ozdemir, O., & Upneja, A. (2016). The role of internationalization on the IPO performance of service firms: Examination of initial returns, long-run returns, and survivability. *International Business Review*, 25(5), 997–1009. DOI :<https://doi.org/10.1016/j.ibusrev.2016.01.009>

Peng, X., Jia, Y., & Chan, K. C. (2021). The impact of internationalization on IPO underpricing: A result of agency costs reduction, a certification effect, or a diversification benefit?. *Finance Research Letters*, 44(C). DOI: 10.1016/j.frl.2021.102059

Rock, K. (1986). Why New Issues Are Underpriced. *Journal of Financial Economics*, 15(1-2), 187-212. [https://doi.org/10.1016/0304-405X\(86\)90054-1](https://doi.org/10.1016/0304-405X(86)90054-1)

Shantha Kumari, S. S. (2008). Multicollinearity: Estimation and elimination. *Journal of Contemporary research in Management*, 3(1), 87-95.

Stoughton, N. M., & Zechner, J. (1998). IPO-mechanisms, monitoring and ownership structure. *Journal of Financial Economics*, 49(1), 45-77. [https://doi.org/10.1016/S0304-405X\(98\)00017-8](https://doi.org/10.1016/S0304-405X(98)00017-8)

Velury, U., & Jenkins, D. S. (2006). Institutional ownership and the quality of earnings. *Journal of Business Research*, 59(9), 1043-1051. <https://doi.org/10.1016/j.jbusres.2006.05.001>

Vithessonthi, C. (2014). What explains the initial return of initial public offerings after the 1997 Asian financial crisis? Evidence from Thailand. *Journal of Multinational Financial Management*, 27, 89-113. DOI: 10.1016/j.mulfin.2014.05.002