MDPI

*Article*

# Choice between Acquisition and Joint Venture Based on Financial Statement Comparability

Heein Yi [1], Sangsoo Kim [2] and Seunghun Han [1],*

1    School of Business and Technology Management, College of Business, Korea Advanced Institute of Science and Technology, 291 Daehak-ro, Yuseong-gu, Daejeon 34141, Korea; yi.heein@kaist.ac.kr
2    Ingenium College of Convergence Studies, Hankuk University of Foreign Studies, 81 Oedae-ro, Mohyeon-eup, Cheoin-gu, Yongin-si 17035, Korea; terence@hufs.ac.kr
*    Correspondence: synosia@kaist.ac.kr; Tel.: +82-42-350-6309

**Abstract:** This study examined the relationship between target firms' financial statement comparability and bidder firms' boundary decisions. The study used initial public offering (IPO) firms as target firms to test the impact of asymmetric information and signaling on investing bidder firms' boundary decisions, such as joint ventures or acquisitions. In the IPO market, as an experimental setting, bidder firms are unfamiliar with issuing firms because they have little information about them prior to the IPO. This study argues that IPO firms with higher accounting comparability show lower information asymmetry. Consistent with this argument, we found that IPO firms' accounting comparability has a positive probability of becoming a target for either a joint venture or acquisition, or an acquisition instead of a joint venture. This study contributes to the literature, financial statement comparability, and joint venture and acquisition decisions to measure the degree to which information asymmetry affects corporate investment strategy using a unique experimental setting of IPO firms.

## 1. Introduction

Corporate strategy, based on the research rooted in resource-based views and transaction cost economics (TCE), typically explains the boundary decisions of firms with ex-post costs. TCE explains market failure with ex-post opportunism [1,2]. Recently, Sestu and Majocchi [3] explained the choice between wholly-owned subsidiaries and joint ventures from the perspective of transaction costs. Tseng [4] and van Rijnsoever et al. [5] explained acquisition versus alliance with a resource-based view. However, information economics applications in corporate strategy focus on ex-ante hazards to explain the boundary decisions of firms. This study focused on explaining the application of information economics in corporate investment strategies among joint ventures and acquisitions, using newly public firms as target firms. Regarding its application in corporate strategy, joint venture is a mechanism that alleviates adverse selection problems because ownership in joint ventures reduces the risk of overpayment [6,7]. Therefore, a joint venture represents an experimental basis for sequential investment transactions. On the contrary, Reuer and Ragozzino [8] suggest that sufficient information signals on target firms reduce ex-ante hazards, thus allowing bidders to acquire rather than enter joint ventures with firms or even avoid a deal altogether. Similarly, McCann et al. [9] suggest that a geographic co-location of similar firms fosters lower levels of information asymmetry between exchange partners, thus leading parties to employ acquisitions rather than alliances. Extrapolating from this previous literature, we hypothesized that signals of the post-initial public offering (IPO) firms' financial statement comparability can affect the bidders' choice between acquiring or agreeing to a joint venture with target firms.

Financial statements contain important information for stakeholders. Specifically, this study focused on the comparability of financial statements. According to the Financial Accounting Standard Board (FASB), "*comparability, including consistency, enhances the usefulness of financial reporting information in making investment, credit, and similar resource allocation decisions. Comparability is the quality of information that enables users to identify similarities in and differences between two sets of economic phenomena*". Numerous studies have examined the benefits of financial statement comparability. For example, financial statement comparability has a strong correlation with banks' risk-taking behavior [10], reduces the cost of acquiring information [11], and negatively correlates with the cost of equity [12]. These studies suggest that financial statement comparability reduces information asymmetry between a focal firm and market participants (the focal firm's counterparties).

Following these previous studies, we hypothesized that IPO firms' financial statement comparability has significant impacts on investing in either joint ventures or acquisitions and, furthermore, on the selection between a joint venture or acquisition. We used IPO firms as an experimental setting to test our hypothesis because financial statement comparability, which reduces information asymmetry, is more important in the IPO context, where asymmetric information is more pronounced. Thus, the signaling effect of financial statement comparability is more pronounced in the IPO context.

Consistent with our research hypothesis, we found that an IPO firm's greater financial statement comparability with its industry peers increases the likelihood of it being chosen for either a joint venture or acquisition. Furthermore, we argue that an IPO firm's greater financial statement comparability fosters lower levels of information asymmetry between exchange partners, thus leading bidders to employ acquisition rather than resorting to joint ventures. Evidence from a sample of over 850 joint ventures and acquisition transactions of new IPO firms provides support for our hypotheses.

This research extends organizational economic research on governance choice by joining it with signaling theory in information economics by the implication of information asymmetry and adverse selection problems to better understand the determinants of a firm's organizational governance choices. This study contributes to the literature by conducting research on the governance choice of organizations using IPO firms' financial statement comparability as a significant proxy for information asymmetry, and helps the capital allocation strategies of bidder firms. Moreover, IPO firms' post-IPO target performances provide unique empirical settings in which information asymmetry is high to demonstrate how information asymmetry between parties has an impact on the party's governance choice. To test this hypothesis, we used joint ventures and acquisitions as the investment allocation strategy of bidder firms. The bidder is selective in choosing a partner as either a joint venture or an acquisition because it is not easy to reverse their decision, especially in the case of acquisition. Therefore, joint ventures and acquisitions are specific corporate investment decisions that enabled us to test our research hypothesis. In sum, information asymmetry is an important determinant of investment allocation, and we used financial statement information, which is the most important determinant in acquisition literature [13], and our unique empirical setting also contributes to the literature on the study of signaling theory in information economics. However, for the joint venture decision, the bidder is comparatively less selective in choosing a partner. This is because joint ownership allows participants to share their overpayment risks. In sum, if the newly listed firms have comparable financial statements, bidder firms would choose acquisition of the newly listed firms rather than opt for joint ventures with them.

The remainder of this study is structured as follows. Section 2 discusses the theoretical background and hypothesis development, and Section 3 describes the data and summary statistics. Section 4 presents the empirical results, and Section 5 provides a conclusion and discusses limitations and future studies.

## 2. Theoretical Background and Hypothesis Development

### 2.1. Information Economics and Signaling Theory

The theoretical background of this study was the research of the 2011 Nobel Prize winners, George A. Akerlof, Joseph E. Stiglitz, and Michael Spence, on information economics and signaling theory. These researchers have widened the horizons of economics. For example, the failure of a used car market can be attributed to information asymmetry [14]. Both high- and low-quality cars are available on the car market. The seller knows the true quality of the cars, but the buyer does not. Buyers would quote the cars' expected values, but these prices would be too low for a seller of high-quality cars. Therefore, the used car market will have only low-quality cars (lemons). Self-selection is one of the main factors in information economics. Individuals reveal information about themselves through their choices; this is called "self-selection" [15]. Based on self-selection, signaling theory explains the actions of informed parties. This theory was first introduced by Spence [16] regarding the labor market. A signal is positively related, and its cost is negatively related, to the unobserved attribute that the receiver values. For example, CSR alleviates information asymmetry in the M&A market by delivering trust signals [17].

### 2.2. Ex-Ante Cost and Joint Venture

The seller firm in an acquisition market can choose to hold back its negative factors and inflate its positive factors. Thus, the buyer firm encounters an adverse selection problem. Alliances can be useful in addressing this problem by avoiding a terminal sale and transfer of ownership. However, minority equity partnerships do not allow first-hand access to firms' resources, and arm's-length alliances do not allow shared ownership and control. Joint ventures facilitate the pricing of assets because repeated relationship contracting induces the revelation of information and facilitates knowledge sharing. Joint ventures allow partners to share the risk of overpayment. Thus, a joint venture is an efficient mechanism when an acquisition fails owing to information asymmetry [6]. In short, when information asymmetry is severe, potential buyers would choose joint ventures as an alternative to acquisition. However, signals from sellers can reduce information asymmetry between parties and allow buyers to acquire a firm rather than collaborate in a joint venture. McCann et al. [9] suggest that agglomeration reduces information asymmetry and managers should have less need to use joint venture over acquisition among co-located firms.

### 2.3. Signaling by Newly Listed Firms

An IPO firm's aim is not limited to raising large-scale financing. An IPO can be used as a vehicle to maximize the value of the initial owner who wants to eventually exit the investment [18]. Some private companies use IPOs prior to their sales [19]. In many cases, newly listed firms are chosen for acquisition soon after their IPO [20]. However, information asymmetry between the IPO and acquirer can hinder transactions. Investors often hesitate to make investments because of insufficient information if they want to invest in newly listed firms [21]. The IPO firm generally uses a signal to reduce information asymmetry between firms and potential investors [8]. Therefore, IPO firms as target firms are a good experimental setting to test our hypothesis that information asymmetry affects bidder firms' choices among joint ventures and acquisitions. Furthermore, newly listed firms are usually young and small firms. Thus, financial statements are a more important source of information, compared to the already listed firms [22].

### 2.4. Financial Statement Comparability

This study used financial statement comparability to explain collaborative strategies. Financial statements are a function of economic events [11]. Academics, standard setters, and regulators emphasize the importance of financial statement comparability. Comparability makes similar things look alike and different things look different [23]. Financial statement comparability helps in resource allocation decisions, especially in rational acqui-

sition decisions [13], credit risk reduction [24], stock price information enhancement [25], and reducing the cost of equity [12].

*2.5. Hypothesis Development*

Regarding IPO firms, many of their financial statements cannot be easily compared to those of their already listed peers. This is because IPO firms are not listed until their IPO; thus, they do not have to consider the various stakeholders in the capital market. The U.S. Securities and Exchange Commission (SEC) supervises private firms on a different basis than listed firms. Bidders in need of resources might consider acquiring and entering joint ventures with IPO firms. However, because limited information is available initially, the potential bidder will have to depend heavily on the target IPO firm's financial statements. These were compared with the financial statements of their already listed peers. Therefore, we hypothesize the following:

**Hypothesis 1. (H1).** *An IPO firm's financial statement comparability will be positively related to its likelihood of being chosen for either a joint venture or acquisition.*

As shown in the strategic literature, a joint venture is a mechanism used to prevent adverse acquisition decisions. Therefore, in the case of severe information asymmetry, a company prefers a joint venture to an acquisition. If the financial statements of the target IPO firm are different from those of the listed peer firms, making it difficult to compare the IPO firm with its peers, the company would choose to collaborate with the IPO firm, rather than acquiring it, to prevent adverse selection. Therefore, we hypothesized the following:

**Hypothesis 2. (H2).** *The likelihood of a firm (bidder) choosing the acquisition of a target IPO firm rather than a joint venture with it will be positively related to the target IPO firm's financial statement comparability.*

The less knowledge a firm (bidder) has about a target IPO firm, the more of an impact the IPO firm's financial statement comparability has on the firm's choice between acquisition and joint venture. Therefore, the firm (bidder) will rely more on the target IPO firm's financial statements. Therefore, we hypothesized the following:

**Hypothesis 3. (H3).** *The signaling effect of target IPO firms' financial statement comparability on the bidders' choice between acquisition and joint venture will be stronger if the bidders' knowledge bases are dissimilar to those of the target IPO firms.*

One would find several moderators for signaling effects, but prior studies in information economics suggest that differences in knowledge bases between the bidder and target could be important. For example, in intra-industry transactions, bidders are familiar with newly listed target firms' resources and capabilities [26]. Therefore, financial statements would provide limited additional information to bidders. In contrast, bidders in inter-industry transactions are unfamiliar with the newly listed target firms' information [6], and thus, IPO firms' publicly available financial statements would be very important sources of information to them. Figure 1 illustrates the summary of hypothesis development based on the corresponding previous literature.
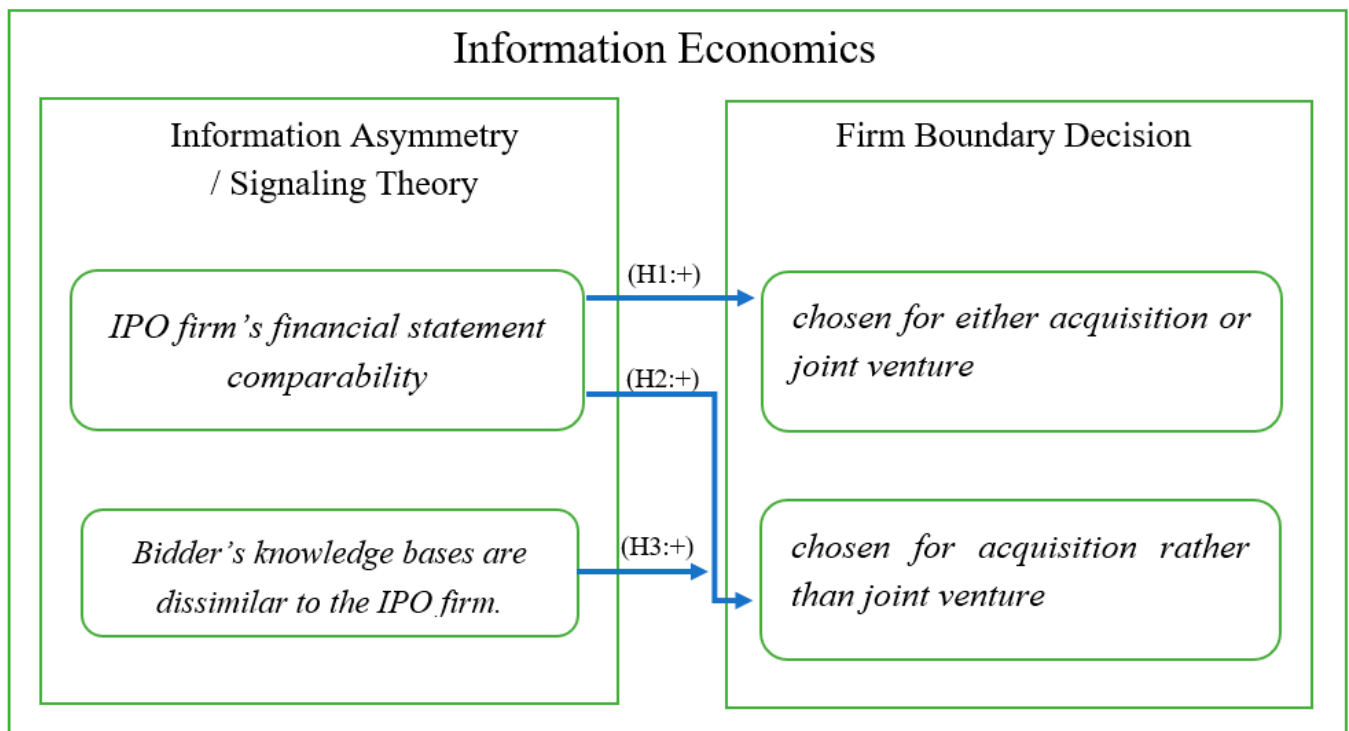
**Figure 1.** Summary of hypotheses with the theoretical background.

### 3. Data and Summary Statistics

*3.1. Data*

Our sample included observations from 1996 to 2019. We obtained accounting data from COMPUSTAT, security data from the Center for Research in Security Prices (CRSP), deals data from Thomson Security Data Corporation (SDC), and common shares' IPO data from Jay Ritter's IPO database.

To measure comparability, we used an all-U.S. firm sample. Additional sampling screens were considered for the transaction level. We subsampled the target firms listed within 10 years, following prior market-entry mode choice studies [27]. Some studies used shorter windows [7,28]. However, we did not choose a shorter window because stock returns of a minimum of 16 quarters are required for comparability calculations.

To control for the heterogeneity in acquirer motives, we limited the samples to cases where the acquirer controls the target firm (i.e., by having at least 50% of shares) only after the transaction. Similar steps were taken for joint venture cases. We excluded all non-equity joint ventures, following prior studies [6]. In Appendix A, definitions of variables used in this study are provided.

*3.2. Measures and Analyses*

Following prior studies on the market-entry mode [7,28], we adopted a dichotomous measure. Some studies on market-entry mode focus on the determinants of governance structure conditional on exchange consummation. Thus, the empirical results reflect only certain transactions that are observed. However, the potential correlation between the unobserved selection process and the error term in governance choice can lead to biased results [8]. In our empirical setting, firms lacking comparability or those with poor quality might not be acquired or partnered with. To address this issue, we estimated the random effects of panel data modeling with endogenous selection. The selection panel reported Hypothesis 1 on the realization of either an acquisition or a joint venture, as well as to control for sample selection bias in Hypotheses 2 and 3 on the choice between acquisition or joint venture. The dependent variable for the outcome equation, Acquisition rather than

joint venture, equals 1 for acquisition and 0 for joint venture. The dependent variable for the selection equation, Either acquisition or joint venture, equals 1 for both acquisition and joint ventures, and 0 for no deal.

We also analyzed our hypothesis in other ways using random effects ordered probit models. For this, the dependent variable took one of the three values to reflect higher levels of integration and commitment: 0 for no deal, 1 for joint venture, and 2 for acquisition [29]. Prior studies suggest that signals can facilitate higher governance mode levels.

*3.3. Independent Variable: Financial Statement Comparability Measure*

Conceptually, the accounting system maps economic events to financial statements. Thus, two firms with comparable accounting systems should produce similar financial statements for a given set of economic events. De Franco et al. [11] used stock returns as a proxy for economic events and earnings in financial statements. Thus, De Franco et al. [11] define financial statement comparability as the similarity in mapping (from returns to earnings) between two firms. This study followed De Franco et al. [11] to calculate the comparability between two firms. Specifically, for each firm–year observation, I first estimated the following equation using data from the last 16 quarters:

$$\text{Earnings}_{it} = \alpha_i + \beta_i \text{Return}_{it} + \varepsilon_{it}$$

where "$\text{Earnings}_{it}$" is the quarterly net income deflated by the equity market value and "$\text{Return}_{it}$" is the quarterly stock returns. Coefficients "$\alpha_i$" and "$\beta_i$" represent the accounting functions of firm i for a given period. Similarly, we estimated the accounting function for firm j for the given period using the same two-digit standard industrial classification (SIC) and firm j's earnings and returns over the last 16 quarters. To measure the distance between (or closeness of) the estimated accounting functions of firms i and j, conditional on the same economic events (i.e., firm i's returns), we calculated the following two earnings predictions:

1. The expected earnings of firm i based on its own accounting function and stock returns were calculated with the following equation:

$$E(\text{Earnings})_{iit} = \alpha_i + \beta_i \text{Return}_{it}$$

2. The expected earnings of firm i based on firm j's accounting function and its own stock returns were calculated with the following equation:

$$E(\text{Earnings})_{ijt} = \alpha_j + \beta_j \text{Return}_{it}$$

Following De Franco et al. [11], we define the comparability between firms i and j, $\text{CompAcct}_{ijt}$, as the average of the absolute difference between the expected earnings over the last 16 quarters based on the accounting functions of firms i and j multiplied by −1:

$$\text{CompAcct}_{ijt} = -1/16 \times \sum \mid E(\text{Earnings})_{iit} - E(\text{Earnings})_{ijt} \mid$$

We estimated the $\text{CompAcct}_{ijt}$ for firms i and j using all the firms in the same two-digit SIC code industry. By construction, greater values of $\text{CompAcct}_{ijt}$ indicate greater financial statement comparability. Following Chen et al. [13], we calculated the average $\text{CompAcct}_{ijt}$ for firm i for period t using all the other firms in the same two-digit SIC industry and labeled this as *accounting comparability$_{it}$*. This is a firm-specific financial statement comparability measure. If a firm has higher *accounting comparability$_{it}$*, information users would be able to evaluate the firm better.

Following the measurement above, the *accounting comparability$_{it}$* is firm i's financial statement comparability for period t with all other firms in the same two-digit SIC code industry. This measure was calculated following a previous study in accounting, as mentioned in Section 2.5. After calculation, we limited the samples to firms listed within

10 years, because this study exploited the features of information asymmetry in the IPO context.

By construction, *accounting comparability$_{it}$* has different distributions among industries because its measures represent the *mean of CompAcct$_{ijt}$* of all combinations with firms in the same two-digit SIC code industry. To address the potential issues arising from this industry heterogeneity, we converted the measures into deciles by the two-digit SIC code industry, rescaled them to a range of 0–1, and labeled this as *Target accounting comparability*. We suggest that the independent variable works as a signal on the target firm to reduce information asymmetry.

### 3.4. Control Variables

We incorporated a few control variables for the target IPO firm. First, we controlled for the size of the target because a large size can hinder acquisition [7]. Since joint ventures are suitable for sequential investments [30], the target's growth opportunity is an important attribute in a transaction. We measured the target's growth opportunities using *Tobin's q*. Data for these variables were obtained from COMPUSTAT. To control for investment opportunities [31–33], we counted the number of transactions in the target firm's industry each year (i.e., *industry acquisition volumes and industry joint venture volumes*).

The second-stage variables that were definable only for this stage (acquisition versus joint venture) were incorporated into the empirical model. The exchange partners' transaction experience might lead them to choose a certain transaction type [34]. Thus, we controlled for the exchange partner's acquisition experience and joint venture experience. Specifically, we used the Thomson SDC database to track a firm's investment, and then counted the number of acquisitions and joint ventures of the firm during the five years preceding the focal transaction. For the *Bidder's acquisition experience* and *Bidder's joint venture experience*, we transformed the count by taking the natural log of one, plus the number of transactions during the five years preceding the focal transaction. This is because both the number of acquisitions and the number of joint ventures have significant right skewness. To control for the disparate industry knowledge base, we incorporated the variable *Intra-industry*, which equals 1 for intra-industry and 0 for inter-industry transactions. This variable has been used as a proxy for asymmetric information in *corporate transactions* [6,7,35]. Moreover, in intra-industry transactions, firms prefer acquisition because they are often subject to ex-post opportunism in joint ventures with competitors [36]. We used SIC codes to distinguish between inter-industry and intra-industry transactions.

Table 1 presents the descriptive statistics for all samples. By construction, *Target accounting comparability$_{it}$* ranges between 0 and 1. *Industry acquisition volumes* and *Industry joint venture volumes* show the number of transactions in the target firms' industry each year. *Either acquisition or joint venture* shows a mean of 0.125. This means that 12.5% of 6856 observations were sampled because *Either acquisition or joint venture* takes the value of 1 for both acquisition and joint venture and 0 for no deal.

Table 1 presents the descriptive statistics for the sampled transaction (acquisition or joint venture). *Acquisition rather than joint venture* has a mean of 0.354. This indicates that 35.4% of the deals were acquisitions because choosing acquisition takes a value of 1 and choosing joint venture takes the value of 0. *Target accounting comparability$_{it}$* has a mean of 0.546 in Table 1 and 0.496 in Table 1. This indicates that the target firm involved in a transaction has higher *Target accounting comparability*.

Table 2 shows the pairwise correlation matrix for all samples. Target firms with comparable financial statements tended to enter transactions ($p < 0.01$). Industry transaction volumes increased the target IPO firms' transactions ($p < 0.01$). The target firms' growth opportunity (measured as *Target Tobin's q*) also facilitated focal transactions ($p < 0.01$).

**Table 1.** Descriptive statistics.

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| **All Samples** | | | | | |
| Either Acquisition and Joint Venture | 6856 | 0.125 | 0.331 | 0 | 1 |
| Target Size | 6854 | 6.135 | 1.788 | 0.34 | 13.502 |
| Target Performance | 6854 | −0.039 | 0.262 | −5.868 | 2.551 |
| Target Leverage | 6854 | 0.187 | 0.257 | 0 | 3.675 |
| Target Tobin's q | 6854 | 2.091 | 1.765 | 0.106 | 26.192 |
| Target Accounting Comparability | 6856 | 0.496 | 0.319 | 0 | 1 |
| Industry M&A Volume | 6856 | 346.316 | 468.795 | 0 | 1616 |
| Industry JV Volume | 6856 | 248.473 | 377.809 | 0 | 2294 |
| **Selected Samples** | | | | | |
| Acquisition rather than joint venture | 858 | 0.354 | 0.479 | 0 | 1 |
| Bidder's acquisition experience | 858 | 0.596 | 0.951 | 0 | 3.932 |
| Bidder's joint venture experience | 858 | 0.512 | 0.858 | 0 | 3.829 |
| Target Size | 858 | 6.141 | 1.864 | 1.162 | 13.199 |
| Target Performance | 858 | −0.057 | 0.233 | −1.983 | 0.722 |
| Target Leverage | 858 | 0.162 | 0.247 | 0 | 2.028 |
| Target Tobin's q | 858 | 2.449 | 2.018 | 0.133 | 20.335 |
| INTRA Industry | 858 | 0.562 | 0.496 | 0 | 1 |
| Target Accounting Comparability | 858 | 0.546 | 0.309 | 0 | 1 |
| Industry M&A Volume | 858 | 502.248 | 541.889 | 0 | 1616 |
| Industry JV Volume | 858 | 401.378 | 460.385 | 1 | 2294 |

*p*-value in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

**Table 2.** Pairwise correlations (all samples).

| Variables | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|---|---|---|---|---|---|---|---|
| (1) Either acquisition or joint venture | 1.000 | | | | | | | |
| (2) Target size | 0.001 | 1.000 | | | | | | |
| (3) Target ROA | −0.027 ** | 0.313 *** | 1.000 | | | | | |
| (4) Target leverage | −0.037 *** | 0.263 *** | 0.003 | 1.000 | | | | |
| (5) Target Tobin's q | 0.077 *** | −0.211 *** | −0.149 *** | −0.065 *** | 1.000 | | | |
| (6) Target accounting comparability | 0.059 *** | −0.214 *** | −0.093 *** | −0.083 *** | 0.056 *** | 1.000 | | |
| (7) Industry acquisition volumes | 0.126 *** | −0.143 *** | 0.006 | −0.156 *** | 0.138 *** | 0.004 | 1.000 | |
| (8) Industry joint venture volumes | 0.153 *** | −0.167 *** | −0.052 *** | −0.132 *** | 0.152 *** | 0.117 *** | 0.821 *** | 1.000 |

*p*-value in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 3 shows the pairwise correlation matrix for the chosen transactions. *Bidder's acquisition experience* and *Bidder's joint venture experience* are related to the type of focal transaction. Those with *acquisition experience* preferred acquisitions ($p < 0.01$), and those with *joint venture experience* preferred joint ventures ($p < 0.01$).

**Table 3.** Pairwise correlations (selected sample, N = 858).

| Variables. | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| (1) Acquisition-rather than joint venture | 1.000 | | | | | | | | | | |
| (2) Bidder's acquisition experience | 0.580 *** | 1.000 | | | | | | | | | |
| (3) Bidder's joint venture experience | −0.222 *** | 0.147 *** | 1.000 | | | | | | | | |
| (4) Target size | −0.247 *** | −0.081 ** | 0.095 *** | 1.000 | | | | | | | |
| (5) Target ROA | −0.074 ** | 0.027 | 0.007 | 0.372 *** | 1.000 | | | | | | |
| (6) Target leverage | 0.025 | −0.030 | −0.011 | 0.190 *** | −0.069 ** | 1.000 | | | | | |
| (7) Target Tobin's q | −0.177 *** | −0.046 | 0.112 *** | −0.061 * | −0.066 * | 0.012 | 1.000 | | | | |
| (8) Intra industry | 0.193 *** | 0.032 | −0.073 ** | −0.093 *** | −0.049 | −0.001 | −0.006 | 1.000 | | | |
| (9) Target accounting comparability | 0.007 | −0.023 | −0.005 | −0.257 *** | −0.151 *** | −0.050 | 0.072 ** | −0.002 | 1.000 | | |
| (10) Industry acquisition volumes | −0.037 | 0.049 | 0.117 *** | −0.128 *** | 0.080 ** | −0.198 *** | 0.130 *** | 0.132 *** | 0.019 | 1.000 | |
| (11) Industry joint venture volumes | −0.086 ** | −0.039 | 0.097 *** | −0.145 *** | 0.017 | −0.189 *** | 0.098 *** | 0.172 *** | 0.129 *** | 0.854 *** | 1.000 |

*p*-value in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

## 4. Empirical Result

Tables 4–6 present the empirical results of the random effects models with endogenous selection in hypothesis testing. The estimation results for acquisitions and joint ventures are presented in Table 4 on the left-hand side (second stage), and the results for the selection equations are presented on the right-hand side (first stage). The empirical results of the random effects models with endogenous selection were constructed in three ways: the inclusion of *Target accounting comparability* in selection only (Table 4), the inclusion of *Target accounting comparability* in both the selection and choice model (Table 5), and the inclusion of the interaction of *Target accounting comparability* and *Intra-industry* (Table 6).

As shown in Table 4, H1 appears to be statistically significant. Thus, higher *Target accounting comparability* increases the likelihood of an IPO firm being chosen for either joint venture or acquisition ($p < 0.1$). The exchange partners' experience is related to their boundary decisions [34] (Pennings et al. 1994). The *Bidders' acquisition experience* increases their preference for *acquisition* over *joint venture* ($p < 0.01$), and the *Bidders' joint venture experience* decreases their preference for *acquisition* over *joint venture* ($p < 0.01$). *Intra-industry* increases the preference for *acquisition* over *joint venture* ($p < 0.01$). This result is consistent with prior theories that firms are more subject to ex-post opportunism in joint ventures with competitors and, therefore, prefer acquisitions over joint ventures in intra-industry transactions [36]. *Target size* decreases the preference for *acquisition* over *joint venture* ($p < 0.05$). This is consistent with prior research findings that size can hinder acquisitions [7].

**Table 4.** Determinant of choice between acquisition and joint venture (random effects with sample selection; inclusion of comparability only in the first stage).

| Variables | Second Stage<br>Acquisition Rather Than Joint Venture | First Stage (Sample Selection)<br>Either Acquisition or Joint Venture |
|---|---|---|
| Intra-Industry | 0.1235 ***<br>(0.0000) | |
| Target accounting comparability | | 0.0940 *<br>(0.0933) |
| Target Tobin's q | −0.0086<br>(0.3216) | 0.0281 **<br>(0.0323) |
| Target size | −0.0265 **<br>(0.0139) | 0.0182<br>(0.2809) |
| Target ROA | −0.0696<br>(0.2973) | −0.1443<br>(0.1082) |
| Target leverage | 0.0378<br>(0.5923) | −0.0635<br>(0.5551) |
| Bidder's acquisition experience | 0.2856 ***<br>(0.0000) | |
| Bidder's joint venture experience | −0.1471 ***<br>(0.0000) | |
| Industry acquisition volumes | 0.0001<br>(0.3642) | 0.0001<br>(0.1159) |
| Industry joint venture volumes | 0.0002 ***<br>(0.0055) | 0.0005 ***<br>(0.0000) |
| Number of gvkey (Observations) | | 1699 (6854) |
| var(e.2nd) | 0.3695 *** | |
| corr(e.1st, e.2nd) | 0.9617 *** | |
| var(2nd[gvkey]) | 0.0825 *** | |
| var(1st[gvkey]) | 0.3486 *** | Wald chi$^2$(9) = 621.01 |
| corr(1st[gvkey],2nd[gvkey]) | 0.9611 *** | Prob > chi$^2$ = 0.0000 |

*p*-value in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

**Table 5.** Determinant of choice between acquisition and joint venture (random effects with sample selection; inclusion of *comparability* in the first and second stages).

| Variables | Second Stage<br>Acquisition Rather Than Joint Venture | First Stage (Sample Selection)<br>Either Acquisition or Joint Venture |
|---|---|---|
| Intra-industry | 0.1234 ***<br>(0.0000) | |
| Target accounting comparability | 0.1215 **<br>(0.0250) | 0.2309 ***<br>(0.0046) |
| Target Tobin's q | −0.0081<br>(0.3536) | 0.0278 **<br>(0.0327) |
| Target size | −0.0203 *<br>(0.0660) | 0.0237<br>(0.1584) |
| Target ROA | −0.0661<br>(0.3228) | −0.1429<br>(0.1107) |
| Target leverage | 0.0321<br>(0.6489) | −0.0620<br>(0.5618) |
| Bidder's acquisition experience | 0.2848 ***<br>(0.0000) | |
| Bidder's joint venture experience | −0.1476 ***<br>(0.0000) | |
| Industry acquisition volumes | 0.0001<br>(0.2288) | 0.0002 *<br>(0.0765) |
| Industry joint venture volumes | 0.0002 **<br>(0.0148) | 0.0004 ***<br>(0.0000) |
| Number of gvkey (Observation) | | 1699 (6854) |
| var(e.2nd) | 0.3835 *** | |
| corr(e.1st, e.2nd) | 0.9636 *** | |
| var(2nd[gvkey]) | 0.0740 *** | |
| var(1st[gvkey]) | 0.3317 *** | Wald chi$^2$(10) = 615.49 |
| corr(1st[gvkey],2nd[gvkey]) | 0.9696 *** | Prob > chi$^2$ = 0.0000 |

*p*-value in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

As shown in Table 5, H1 and H2 appear to be statistically significant. Thus, higher *Target accounting comparability* increases the likelihood of an IPO firm being chosen for acquisition or joint venture ($p < 0.01$). It also increases the likelihood of acquiring a company rather than entering a joint venture with the target IPO firm ($p < 0.05$).

From Table 6, H3 appears to be statistically insignificant, although the sign of the interaction term is consistent with expectations. This insignificance of the interaction suggests equal importance of the influence of *Target accounting comparability* on intra-industry transactions.

Table 7 presents the empirical results of the random effects ordered probit model used for hypothesis testing. The table was constructed using two models: (1) with *Target accounting comparability*, and (2) without *Target accounting comparability*. As seen in Table 7, H1 and H2 appear to be statistically significant. Thus, higher *Target accounting comparability* increases the likelihood of an IPO firm being chosen for either acquisition or joint venture ($p < 0.01$), as well as the likelihood of the company acquiring rather than entering a joint venture with the target IPO firm ($p < 0.05$). The results also show that the inclusion of *Target accounting comparability* does not change the overall effects of the control variables.

Overall, H1 and H2 appeared to be statistically significant. Thus, *Target accounting comparability* functions as a signal from the target firm, which reduces the information asymmetry between the bidder and target. Thus, it appears to be a key determinant of the choice between acquisition and joint venture. This is because screening is the main strategy used to combat adverse selection. The victim of asymmetric information starts by finding out as much as possible about the target. If the target has comparable financial statements, the bidder (victim of asymmetric information) can evaluate the target better and reduce the

risk of adverse selection. Thus, comparability will lead to the choice of acquisition rather than a joint venture, or even avoid the deal altogether.

In the real-world practice of corporate investment strategy, either in joint ventures or acquisitions, there are many factors affecting these decisions and the efficiency of these decisions. For example, Reuer and Ragozzino [8] show that the investment bank's reputation, venture capital backing, and the degree of dissimilar knowledge significantly affect the corporate investment allocation between joint ventures and acquisitions based on the signaling theory, arguing that these determinants reduce information asymmetry between bidders and targets. Similarly, Chen et al. [13] show that financial statement comparability increases acquisition efficiencies, such as firm value and profitability. Chen et al. [13] divided the merger and acquisition process by preliminary due diligence, in-depth diligence, and transactional due diligence and showed that the information required in each corresponding process is public information, limited private information, and extensive private information. Chen et al. [13] argue that financial statement information is the most important information for screening, accurate valuation, and facilitating the oversight of the board and investors of the target. Therefore, our empirical results have meaningful contributions not only from a theoretical perspective but also from a real-world perspective.

**Table 6.** Determinant of choice between acquisition and joint venture (random effects with sample selection; inclusion of *comparability * intra-industry interaction term*).

| Variables | Second Stage<br>Acquisition Rather Than<br>Joint Venture | First Stage<br>(Sample selection)<br>Either Acquisition or<br>Joint Venture |
|---|---|---|
| Intra-industry | 0.1239 ***<br>(0.0031) | |
| Target accounting comparability | 0.1221 *<br>(0.0651) | 0.2310 ***<br>(0.0046) |
| Intra-industry * Target accounting comparability | −0.0010 (0.9880) | |
| Target Tobin's q | −0.0081<br>(0.3539) | 0.0278 **<br>(0.0327) |
| Target size | −0.0203 *<br>(0.0662) | 0.0237<br>(0.1585) |
| Target ROA | −0.0661<br>(0.3233) | −0.1429<br>(0.1107) |
| Target leverage | 0.0320<br>(0.6499) | −0.0620<br>(0.5616) |
| Bidder's acquisition experience | 0.2848 ***<br>(0.0000) | |
| Bidder's joint venture experience | −0.1476 ***<br>(0.0000) | |
| Industry acquisition volumes | 0.0001<br>(0.2291) | 0.0002 *<br>(0.0765) |
| Industry joint venture volumes | 0.0002 **<br>(0.0149) | 0.0004 ***<br>(0.0000) |
| Number of gvkey (Observations) | | 1699 (6854) |
| var(e.2nd) | 0.3834 *** | |
| corr(e.1st, e.2nd) | 0.9636 *** | |
| var(2nd[gvkey]) | 0.0740 *** | |
| var(1st[gvkey]) | 0.3317 *** | Wald Chi$^2$(11) = 615.66 |
| corr(1st[gvkey],2nd[gvkey]) | 0.9696 *** | Prob > chi$^2$ = 0.000 |

*p*-value in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

**Table 7.** Determinant of choice between acquisition and joint venture (random effects ordered probit model).

| Variables | (1) | (2) |
|---|---|---|
| | DV: 0 = No Transaction<br>1 = Joint-Venture<br>2 = Acquisition | |
| Target accounting comparability | 0.2101 *** | |
| | (0.0096) | |
| Target Tobin's q | 0.0180 | 0.0180 |
| | (0.1606) | (0.1648) |
| Target size | 0.0077 | −0.0010 |
| | (0.6431) | (0.9516) |
| Target ROA | −0.1270 | −0.1289 |
| | (0.1574) | (0.1523) |
| Target leverage | −0.0454 | −0.0491 |
| | (0.6679) | (0.6457) |
| Industry acquisition volumes | 0.0002 ** | 0.0002 * |
| | (0.0335) | (0.0720) |
| Industry joint venture volumes | 0.0004 *** | 0.0004 *** |
| Outpoint estimates | (0.0002) | (0.0000) |
| Cut1 | 1.6641 *** | 1.5097 *** |
| | (0.0000) | (0.0000) |
| Cut2 | 2.3079 *** | 2.1566 *** |
| | (0.0000) | (0.0000) |
| sigma2_u | 0.3450 *** | 0.3678 *** |
| | (0.0000) | (0.0000) |
| Observations | 6854 | 6854 |
| | 1699 | 1699 |
| | Wald chi$^2$(7) =108.80 | Wald chi$^2$(6) = 101.23 |
| Number of gvkey | Prob > chi$^2$ = 0.0000 | Prob > chi$^2$ = 0.0000 |
| | LR test chibar2(01) = 79.19 | LR test chibar2(01) = 87.25 |
| | Prob >= chibar2 = 0.0000 | Prob >= chibar2 = 0.0000 |

$p$-value in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

## 5. Conclusions and Discussion

### 5.1. Conclusions

This study explicitly shows that a potential bidder (acquirer) considers the financial statements of newly listed firms before choosing an efficient mechanism for coordination. This means that bidders screen newly listed targets using publicly available information. Financial statements would help potential bidders decide on their cooperative mechanisms. Potential bidders make strategic decisions after thoroughly comparing the newly listed target firm with its competitors because of the considerable effect of acquisitions. When the potential acquirer highly requires the target firm's resource but the latter's financial status cannot be compared because of the lack of financial statement comparability, the bidder postpones the acquisition decision and instead decides on a joint venture.

This study shows that target firms' accounting comparability affects bidders' collaborative strategic decisions regarding the target firms. Corporate strategy research rarely considers studies from accounting fields. However, this study introduces accounting comparability into a corporate strategy. It can be used as a new proxy for a signal from target firms that find a potential buyer (acquirer) or joint venture partner. Our findings show that a highly comparable financial statement allows potential bidders to decide on acquisition (using market transactions) rather than joint ventures.

### 5.2. Limitations and Future Studies

An accounting system is a function of economic events whose output is financial statements. This study follows De Franco et al. [11] for the measurement of an accounting system. This measurement assumes that a company's earnings represent the firm's financial statements, although earnings are only a single aspect of financial statements. It simply regards a firm's stock returns as representing its economic events. The hidden assumption is that stock market investors react properly to a firm's economic events. Here,

the efficient market hypothesis (EMH) is valid, but the proxy is incorrect. This is because accounting standards do not recognize an economic event that is not mentioned in the accounting standard. For example, the accounting standard does not recognize employees as intangible assets because it recognizes intangible assets very conservatively. Therefore, not all economic events and the resources of a firm are presented in its financial statements. Thus, the independent variable of this study, the newly listed firm's financial statement comparability using De Franco et al. [11]'s measurement, may have a limited impact on the potential partners' strategic decisions. Therefore, to control for measurement errors, we can conduct a robustness test using different measures of financial statement comparability, such as two more financial statement comparability proxies by Barth et al. [37].

This study is limited to the impact of financial statement comparability on the investment allocation likelihood of firms for either joint ventures and/or acquisitions. However, this study can be extended to how these investment decisions are linked to the efficiency of investment allocations. For example, we can examine the moderating effect of financial statement comparability on post-joint venture/acquisition performance, such as stock returns or profitability. This additional analysis will provide a more comprehensive view and understanding of the impact of information asymmetry on firm performance in the field of information economics. Furthermore, in addition to the post-performance, if we can add the announcement returns as a performance of joint venture and acquisition ex-ante, it will add more robust results to our findings.

Our sample is limited to newly public IPO firms to emphasize the uniqueness of information asymmetry in an empirical setting. Large firms and/or SMEs have different governance structures compared to newly IPO firms, which may cause different strategic approaches in financial statement comparability. If we extend our samples to large companies and SMEs for the robustness test, we can generalize our findings and contribute to the literature.

**Author Contributions:** Conceptualization, H.Y.; Project administration, S.H.; Writing—review & editing, S.K. All authors have read and agreed to the published version of the manuscript.

## Appendix A

**Table A1.** Definition of variables.

| Dependent Variables | |
|---|---|
| Either acquisition or joint venture | This equals 1 for both acquisition and joint venture, and 0 for no deal. |
| Acquisition rather than joint venture | This equals 1 for choosing acquisition, and 0 for choosing joint venture. |
| **Independent Variables** | |
| Target accounting comparability | 1. For each firm–year observation, estimate the following equation using data from the last 16 quarters: $$Earnings_{it} = \alpha_i + \beta_i Return_{it} + \varepsilon_{it}$$ 2. To measure the distance between (or closeness of) the estimated accounting functions of firms i and j conditional on the same economic events (i.e., firm i's returns), calculate the following two earnings predictions. (a) The expected earnings of firm i based on its own accounting function and stock returns, as equation $$E(Earnings)_{iit} = \alpha_i + \beta_i Return_{it}$$ (b) The expected earnings of firm i based on firm j's accounting function and its own stock returns, as equation $$E(Earnings)_{ijt} = \alpha_j + \beta_j Return_{it}$$ 3. CompAcct$_{ijt}$, the comparability between firms i and j, is defined as the average of the absolute difference between the expected earnings over the last 16 quarters based on the accounting functions of firms i and j, multiplied by −1: $$CompAcct_{ijt} = -1/16 \times \sum |E(Earnings)_{iit} - E(Earnings)_{ijt}|$$ 4. Estimate CompAcct$_{ijt}$ for firms i and j combination using all the firms in the same two-digit SIC code industry. 5. Calculate *the average CompAcct$_{ijt}$* of all possible combinations with firm i within the same two-digit SIC industry and label this as *accounting comparability$_{it}$*. 6. Limit *the samples* into firms listed within 10 years and convert them into deciles by the two-digit SIC code industry and rescale them in the range of 1–0 and label this as *Target accounting comparability$_{it}$* |

**Table A1.** *Cont.*

| Control Variables | |
|---|---|
| Industry acquisition volumes | This is the number of acquisitions in the target's industry each year. |
| Industry joint venture volumes | This is the number of joint ventures in the target's industry each year. |
| Bidder's acquisition experience | This is measured as the natural logarithm of 1, plus the *number of acquisitions of the firm during the five years preceding the focal transaction.* |
| Bidder's joint venture experience | This is measured as the natural logarithm of 1, plus the *number of joint ventures of the firm during the five years preceding the focal transaction.* |
| Intra-industry | This equals 1 for intra-industry and 0 for inter-industry transactions. |
| Target size | This is measured as the natural logarithm of total assets (at). |
| Target Tobin's-q | This is measured as the book value of assets (at) plus the market value of common equity (csho × prcc_f) minus book minus book value of common equity (ceq). |
| Target leverage | This is measured as long-term debt (dltt) divided by total assets (at). |
| Target ROA | This is measured as net income (ni) divided by total assets (at). |

## References

1. Riordan, M.H.; Williamson, O.E. Asset specificity and economic organization. *Int. J. Ind. Organ.* **1985**, *3*, 365–378. [CrossRef]
2. Wang, L.; Zajac, E.J. Alliance or acquisition? A dyadic perspective on interfirm resource combinations. *Strateg. Manag. J.* **2007**, *28*, 1291–1317. [CrossRef]
3. Sestu, M.C.; Majocchi, A. Family firms and the choice between wholly owned subsidiaries and joint ventures: A transaction costs perspective. *Entrep. Theor. Pract.* **2020**, *44*, 211–232. [CrossRef]
4. Tseng, C.-H. Solving the ally-versus-acquire dilemma through the dual lenses of subjective and objective views. *J. Bus. Econ. Manag.* **2017**, *18*, 373–389. [CrossRef]
5. van Rijnsoever, F.J.; Kempkes, S.N.; Chappin, M.M.H. Seduced into collaboration: A resource-based choice experiment to explain make, buy or ally strategies of SMEs. *Technol. Forecast. Soc. Chang.* **2017**, *120*, 284–297. [CrossRef]
6. Balakrishnan, S.; Koza, M.P. Information asymmetry, adverse selection and joint-ventures. *J. Econ. Behav. Organ.* **1993**, *20*, 99–117. [CrossRef]
7. Hennart, J.F.; Reddy, S. The choice between mergers/acquisitions and joint ventures: The case of Japanese investors in the United States. *Strateg. Manag. J.* **1997**, *18*, 1–12. [CrossRef]
8. Reuer, J.J.; Ragozzino, R. The choice between joint ventures and acquisitions: Insights from signaling theory. *Organ. Sci.* **2012**, *23*, 1175–1190. [CrossRef]
9. McCann, B.T.; Reuer, J.J.; Lahiri, N. Agglomeration and the choice between acquisitions and alliances: An information economics perspective. *Strateg. Manag. J.* **2016**, *37*, 1085–1106. [CrossRef]
10. Hasan, M.M.; Cheung, A.K.; Taylor, G. Financial statement comparability and bank risk-taking. *J. Contemp. Acc. Econ.* **2020**, *16*, 100206. [CrossRef]
11. De Franco, G.; Kothari, S.P.; Verdi, R.S. The benefits of financial statement comparability. *J. Acc. Res.* **2011**, *49*, 895–931. [CrossRef]
12. Imhof, M.J.; Seavey, S.E.; Smith, D.B. Comparability and cost of equity capital. *Acc. Horiz.* **2017**, *31*, 125–138. [CrossRef]
13. Chen, C.W.; Collins, D.W.; Kravet, T.D.; Mergenthaler, R.D. Financial statement comparability and the efficiency of acquisition decisions. *Contemp. Account. Res.* **2018**, *35*, 164–202. [CrossRef]
14. Akerlof, G.A. The Market for "Lemons": Quality Uncertainty and the Market Mechanism. In *Uncertainty in Economics*; Elsevier: Amsterdam, The Netherlands, 1978; pp. 235–251.
15. Rothschild, M.; Stiglitz, J. Equilibrium in Competitive Insurance Markets: An Essay on the Economics of IMPERFECT INFoRMA-TIoN. *Q. J. Econ.* **1976**, *90*, 629–649. [CrossRef]
16. Spence, M. Job Market Signaling. In *Uncertainty in Economics*; Elsevier: Amsterdam, The Netherlands, 1978; pp. 281–306.
17. Li, K.; He, C.; Dbouk, W.; Zhao, K. The Value of CSR in Acquisitions: Evidence from China. *Sustainability* **2021**, *13*, 3721. [CrossRef]
18. Zingales, L. Insider ownership and the decision to go public. *Rev. Econ. Stud.* **1995**, *62*, 425–448. [CrossRef]
19. Brau, J.C.; Fawcett, S.E. Initial public offerings: An analysis of theory and practice. *J. Fin.* **2006**, *61*, 399–436. [CrossRef]
20. Agrawal, A.; Jaffe, J.F. The post-merger performance puzzle. In *Advances in Mergers and Acquisitions*; Emerald Group Publishing Limited: Bingley, UK, 2000; pp. 7–41. [CrossRef]
21. Kim, N.-Y. Do Reputable Underwriters Affect the Sustainability of Newly Listed Firms? Evidence from South Korea. *Sustainability* **2019**, *11*, 2665. [CrossRef]
22. Lizińska, J.; Czapiewski, L. Towards Economic Corporate Sustainability in Reporting: What Does Earnings Management around Equity Offerings Mean for Long-Term Performance? *Sustainability* **2018**, *10*, 4349. [CrossRef]
23. Barth, M.E.; Landsman, W.R.; Lang, M.H.; Williams, C.D. Effects on comparability and capital market benefits of voluntary adoption of IFRS by US firms: Insights from voluntary adoption of IFRS by non-US firms. *SSRN J.* **2013**. [CrossRef]
24. Kim, S.; Kraft, P.; Ryan, S.G. Financial statement comparability and credit risk. *Rev. Account. Stud.* **2013**, *18*, 783–823. [CrossRef]

25. Choi, J.H.; Choi, S.; Myers, L.A.; Ziebart, D. Financial statement comparability and the informativeness of stock prices about future earnings. *Contemp. Account. Res.* **2019**, *36*, 389–417. [CrossRef]

26. Montgomery, C.A.; Hariharan, S. Diversified expansion by large established firms. *J. Econ. Behav. Organ.* **1991**, *15*, 71–89. [CrossRef]

27. Mikkelson, W.H.; Megan Partch, M.; Shah, K. Ownership and operating performance of companies that go public. *J. Financ. Econ.* **1997**, *44*, 281–307. [CrossRef]

28. Kogut, B.; Singh, H. The effect of national culture on the choice of entry mode. *J. Int. Bus. Stud.* **1988**, *19*, 411–432. [CrossRef]

29. Villalonga, B.; McGahan, A.M. The choice among acquisitions, alliances, and divestitures. *Strateg. Manag. J.* **2005**, *26*, 1183–1208. [CrossRef]

30. Kogut, B. Joint ventures and the option to expand and acquire. *Manag. Sci.* **1991**, *37*, 19–33. [CrossRef]

31. Ritter, J.R. Signaling and the valuation of unseasoned new issues: A comment. *J. Fin.* **1984**, *39*, 1231–1237. [CrossRef]

32. Lerner, J. Venture capitalists and the decision to go public. *J. Financ. Econ.* **1994**, *35*, 293–316. [CrossRef]

33. Pennings, J.M.; Barkema, H.G.; Douma, S.W. Organizational learning and diversification. *Acad. Manag. J.* **1994**, *37*, 608–640.

34. Baker, M.; Gompers, P.A. The determinants of board structure at the initial public offering. *J. Law Econ.* **2003**, *46*, 569–598. [CrossRef]

35. Kohers, N.; Ang, J. Earnouts in mergers: Agreeing to disagree and agreeing to stay. *J. Bus.* **2000**, *73*, 445–476. [CrossRef]

36. Park, S.H.; Russo, M.V. When competition eclipses cooperation: An event history analysis of joint venture failure. *Manag. Sci.* **1996**, *42*, 875–890. [CrossRef]

37. Barth, M.E.; Landsman, W.R.; Lang, M.; Williams, C. Are IFRS-based and US GAAP-based accounting amounts comparable? *J. Acc. Econ.* **2012**, *54*, 68–93. [CrossRef]